



REASON

3.0

→ Getting Started

STAND-ALONE MUSIC PRODUCTION INSTRUMENT

→ 14 Channel Expandable Mixer → Analog Polysynth → Grainable Polysynth → Digital Samplers → Mastering Tools → REX-loop Player → Drum Machine
→ ReBirth Input Device → Multiple Effects Processors → Combinator Device → Shelving and Parametric EQs → Master Song Sequencer → Pattern
Sequencer → 64 Channel Audio Output → 64 Channel ReWire Output → 512 Band Vocoder → CV Processing Tools → Full Automation → Total Recall



Operation Manual by Synkron: Anders Nordmark

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REASON

1

→ Installation

Welcome!

Thank you for purchasing Reason 3.0!

Version 3.0 is the third major update of Reason, and this time we have designed the update with live playing in mind. With the powerful Combinator device, an updated and expanded sound bank, a completely new Browser, the awesome Remote technology and also a new range of mastering effect devices, we think we have created a piece of music software that is just as well suited in the studio as it is on stage.

Replacing expensive and easily outdated hardware with easy-to-use, cool sounding software has always been our mission. And with Reason 3, we feel that we have pushed the software synthesis concept one step further by bringing it on stage!

A strong driving force for us at "PropellerHeadQuarters" is the communication with all the people around the world that use our applications for expressing themselves. One meeting point for all of us is the song archives and message boards on our web pages. This is a unique forum where professionals and beginners meet on equal terms to exchange music and ideas. Even more importantly, it's a forum open to you! Share your experiences by communicating with us and others and by uploading your songs for others to hear. We think you will appreciate the feedback from other Reason users all over the world, just as much as we appreciate the feedback we get from you.

So, see you on the Propellerhead web!

Yours truly,

The Propellerhead Software Team

www.propellerheads.se

About the manuals

This is the Getting Started manual, covering the basic features and procedures in Reason. It also contains a tutorial section and a guided tour, to help you get going with the program.

The more advanced features in Reason are described in the Operation Manual, a file in Adobe Acrobat (".pdf") format. This and other pdf documents are installed with the program - you find them in the Documentation folder inside your Reason application folder. The Operation Manual also contains reference descriptions of all Reason devices and commands.

! To read the Operation Manual you will need the Adobe Acrobat Reader application (version 5.0 or later). Since this has become something of a household utility application, chances are you already have it installed on your computer. If not, run the Acrobat Reader installer included on the Reason program disc.

About Mac and Windows

Reason runs under Mac OS X and Windows (for operating system details, see below). All Reason packages contain program versions for both platforms. Everything said in the manuals applies to both platforms, unless explicitly stated.

If you are running Mac OS X, please note that there's an additional menu called the Reason menu, which is not present under Windows. This contains the Preferences menu item (otherwise found on the Edit menu).

! Virtually all screenshots in the manuals are from the Windows version of Reason. However, the contents of all windows and dialogs are the same on both platforms.

What is in the Reason package?

When you purchase Reason, the package contains the following items:

→ **The Program Disc CD.**

This contains the Reason installer, electronic documentation in Adobe Acrobat format, and an installer for Adobe Acrobat Reader. There will also be additional files such as promotional material, demo versions of other Propellerhead Software products, etc.

→ **The Factory Sound Bank CD.**

This contains the Reason Factory Sound Bank, a large file containing samples, patches and loops for use with Reason. This is copied to your hard disk the first time you launch Reason (see [page 10](#) for more information).

→ **The Orkester CD**

This contains the Reason Orkester Sound Bank. This is also copied to your hard disk the first time you launch Reason (see [page 10](#) for more information).

→ **The printed documentation.**

→ **The product authorization card.**

This contains the license number required for the installation. Keep this card in a safe place, in case you need to re-install Reason!

Requirements

Below you will find the minimum requirements for running Reason:

! Note that these are the minimum requirements! You will benefit from a fast computer with a lot of RAM, since this will allow you to use more devices at the same time.

Mac OS X

- G3, G4 or G5 processor, sufficiently fast to run Mac OS X 10.2.
- 256 MB RAM
- 2 GB free hard disk space.
- CD-ROM drive.
- Mac OS X 10.2 or later.
- A MIDI interface and a MIDI keyboard recommended.

Windows

- Intel Pentium 3 or better. 300 MHz or faster.
- 256 MB RAM.
- 2 GB free hard disk space.
- CD-ROM drive.
- Windows 2000/XP (or later).
- 256 color monitor (or better), 800x600 or larger.
- A 16 bit Windows compatible audio card, preferably with an ASIO or DirectX driver.
- A MIDI interface and a MIDI keyboard recommended.

About the Audio Hardware

The audio hardware is the computer equipment that converts the digital signals from Reason to analog audio signals (for connection to an amplifier, headphones, or similar). This equipment could be a standard stereo sound card, a USB audio interface, the built-in audio hardware on a Macintosh or some more advanced audio card with several inputs and outputs, digital connectors, etc. Regardless of which, you need to make sure the hardware and its drivers are properly installed:

Mac OS X

If you are using the built-in audio hardware of the Macintosh

In this case you don't need to make any extra settings. Just connect the audio output to your listening equipment (speakers, mixer, headphones or similar) and make sure your Mac plays audio properly.

If you are using other audio hardware

You may want to use other audio hardware with Reason (e.g. an audio interface with multiple outputs, digital connections, etc.). For this to be possible, the audio hardware must be compatible with Mac OS X, that is, there must be a Mac OS X driver available for the card.

- 1. Install the audio hardware and its drivers as described in its documentation.**
- 2. Connect the stereo outputs of your audio hardware to your listening equipment (speakers, mixer, headphones or similar).**
For info about how to use multiple outputs (i.e. more than a stereo output), see the Operation Manual pdf. For now, we stick to standard stereo connections.
- 3. If possible, test that audio plays back OK with the audio hardware.**
With some audio hardware, a test application is supplied for this purpose.

Windows

- **If possible, you should use ASIO compatible audio hardware (i.e. audio hardware for which there is an ASIO driver).**
ASIO drivers generally provide better performance and lower latency (see page 14).
- **If there is no ASIO driver available, you should make sure your audio card supports DirectX.**
DirectX is a Microsoft protocol for handling audio and other multimedia aspects.
- **As a last resort, you could use audio cards that don't support ASIO or DirectX, provided that they are Windows compatible.**
In this case, Reason will communicate with the audio hardware via MME (Windows Multi Media Extensions). However, most often this results in large latency values (see page 14), making real-time playback of instrument devices difficult or even impossible.

Regardless of which type of audio hardware or drivers you are using, you should follow these basic steps:

- 1. Make sure you have the latest drivers for the audio hardware!**
Please check the manufacturer's web site for the latest versions.
- 2. Install the audio hardware and its drivers as described in its documentation.**
- 3. Connect the stereo outputs of your audio hardware to your listening equipment (speakers, mixer, headphones or similar).**
For information about how to use multiple outputs (i.e. more than a stereo output), see the Operation Manual pdf. For now, we stick to standard stereo connections.
- 4. If possible, test that audio plays back properly with the audio hardware.**
In the case of audio hardware with ASIO drivers, you will need some test application for this (often included with the audio hardware). If you are using DirectX or MME drivers, you can use Windows' Media Player application for this.

About MIDI Interfaces

While it is possible to use Reason without an external MIDI controller (by playing patterns and loops only, or drawing notes and automation in the sequencer), this would not allow you to use the program to its full potential. From now on we assume that you are using a MIDI interface and some kind of external MIDI controller (typically a MIDI keyboard with a built-in USB interface).

- **When installing the MIDI interface and its drivers, follow the instructions in its documentation carefully.**
- **While a MIDI interface with a single input is sufficient, you will benefit from having two or more individual inputs.**
This is especially true if you want to manipulate Reason parameters with additional MIDI control surface devices or use the program in conjunction with an external, stand-alone sequencer, groove machine or similar.
- For some MIDI interfaces connected via USB, no driver installation is required. Just plug in the interface and you're ready to go!
- For other, more advanced MIDI interfaces (or at least to take advantage of more advanced features, like multiple inputs) you will need to install a driver. Please consult the documentation that came with the interface for details.

MIDI Connections

- **Simply connect the USB cable from your keyboard to your computer.**
Although many USB MIDI keyboards are “plug-and-play”, some may require a driver to be installed. Consult the documentation that came with your MIDI keyboard.
- Or
- **Connect a MIDI cable from the MIDI Out on your MIDI keyboard (or other MIDI controller) to a MIDI In on your MIDI interface.**
This is sufficient to be able to play and record notes and controllers in Reason from the MIDI keyboard.
 - **If you are not using a USB keyboard, you may also connect the MIDI Out from the MIDI interface to the MIDI In on your MIDI keyboard.**
This is not strictly necessary to use Reason, but it will enable two-way communication when you run the Reason Setup Wizard which appears the first time Reason is launched (see page 12), or when using Auto-detect Surfaces in the Preferences. Whether auto-detection works or not depends on the keyboard model.
- !
- **If you have several MIDI control surfaces or similar that you want to use, we recommend that you connect them to separate MIDI ports (or directly to the computer using USB).**

Upgrading vs. New Installations

If you are upgrading from a previous version, please note the following:

- **Our recommendation is that you uninstall the previous version before installing the new one.**

Under Windows, please use the Uninstall feature. Under Mac OS, just drag the program files to the Trash. Uninstalling will ensure that there is no confusion between versions and that shortcuts and aliases point to the right files etc.

Installing the Software

Running the Installer

Now it's time to install the actual Reason software:

→ **Insert the Reason CD labeled “Program Disc” into your CD-ROM drive.**

What to do next depends on whether you are installing on a Mac or a Windows computer.

Windows:

1. On the CD-ROM, locate the file called “Install Reason” and double click on it.

Under Windows, the installer may automatically start when you insert the CD, depending on your system settings.

2. Follow the instructions on screen.

Before executing the installation of the software components, you will be asked to specify a install location, and whether you wish to create a program shortcut/alias on your desktop. When the installation is complete, you have the option of launching Reason directly.

Mac OS:

On the Mac, there is only a folder called “Reason” - simply drag this to the Applications folder on your hard disk.

About the Sound Banks

The first time you launch Reason, you will be asked to insert the Reason Factory Sound Bank and the Orkester Sound Bank. These each consist of one big file, containing a large number of patches, samples and loops, serving as your main supply of sounds (much like the sound ROM in a synthesizer).

These are copied to your hard disk and are required to run the program.

Launching the Program

Now, the Reason files have been installed in a folder on your hard disk. Under Windows, all Reason related items have also been added to the Start menu and possibly you will have a Reason shortcut on the Desktop.

1. Check for any ReadMe files in the Reason folder or on the Start menu, and open and read these.

ReadMe files may contain important last minute information that didn't make it into this manual.

2. Launch the program by double clicking the Reason icon (or by selecting the Reason item from the Start menu).

3. First a Licensing Agreement is shown.

Read it through and click “Agree” to proceed.

4. You will now be asked to insert the Orkester CD in your CD-ROM drive.

The Orkester Sound Bank will be then be automatically copied into the Reason Program folder. During this process, which will take a while, various splash screens are shown, along with a progress meter.

5. Next, you will be asked to insert the “Factory Sound Bank” CD in your CD-ROM drive.

The Factory Soundbank will also automatically be copied into the Reason Program folder.

6. Fill in the authorization form that appears.

Your license number can be found on the product authorization card included in the package.

At this point a dialog appears, asking you whether you want to register your copy of the program at the Propellerhead web site. Registering gives you immediate access to various benefits such as free, extra sounds for Reason!

! You must have a working Internet connection to be able to register on-line.

→ **If you click the Register Now button, your Internet browser will launch and take you to the registration page on the Propellerhead web site.**

Follow the instructions on the web page. After finishing the registration, click the Continue button in the installation dialog.

→ **If you don't want to register at this point, click the Later button.**

You can register at any time by selecting Product Registration from the Contact menu (Mac) or Help menu (Windows) in Reason (or by going to www.propellerhead.se/register).

This completes the installation and the program is opened, but a new dialog appears named “Reason Setup Wizard” which will guide you through the basic settings needed to use Reason.

This is described in the “Setting Up” chapter so just leave things as they are for now and go to the next chapter...



REASON

2

→ Setting Up

About this Chapter

This chapter describes the settings you need to make before you can start using Reason. These are necessary in order to get any sounds from the program and to be able to play and control Reason via MIDI.

First run - Reason Setup Wizard

If you followed the instructions correctly in the last chapter, Reason should be running, and the first dialog in the "Reason Setup Wizard" guide should be open.

This only appears the very first time the program is run.



! Note that any settings made in the Setup Wizard can always be changed later in the Preferences!

Clicking Next will take you through a series of dialogs, where the following happens:

→ **The Setup Wizard will first try to find a compatible audio driver.**

It will automatically select the first compatible driver it finds. If this is the driver you wish to use, fine. If it isn't, select your preferred driver from the Audio Card Driver pop-up. If you don't know which driver to use, see [page 13](#).

→ **Next, Reason will try to auto-detect a master MIDI keyboard.**

If one is found and you want to use this, click "Use" and proceed.

→ **If Reason can't find the keyboard you have connected, or if you clicked "Don't Use", you will be asked to specify a master keyboard manually.**

This is done by first selecting a Manufacturer, and then a model. If your model keyboard isn't on this list select "Other" - see below.

! For Reason to auto-detect a device you need two-way MIDI communication! Non-USB keyboard devices without a MIDI input can of course still be added manually.

! Note that your keyboard model is not necessarily one that Reason "knows". This is especially true for older models. You can still use such a MIDI keyboard, by selecting "Other" from the Manufacturer pop-up.

→ **You will also have to specify a MIDI port to use.**

This can be done manually or by playing a few notes on your keyboard.

→ **Note that if you have additional remote control surface devices in your setup, these will have to be added in the Preferences - see [page 13](#).**

The Setup Wizard will only establish a connected master MIDI keyboard device.

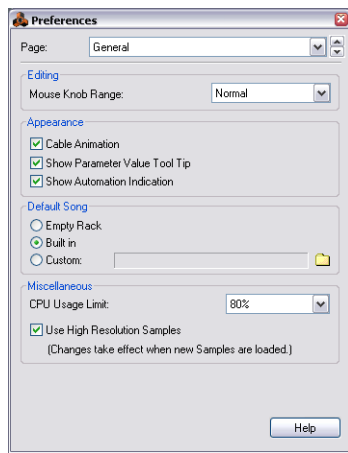
If all went well, you should now have established audio and MIDI communication - the basics needed to play back audio and to direct MIDI to Reason! Reason will launch and bring up the default song.

However, if for any reason the Setup Wizard failed to establish the necessary settings, or if you wish to add other devices etc., you have to make settings in the Preferences.

Read on...

About the Preferences

The basic settings for audio and MIDI are done in the Preferences dialog. This is opened from the Edit menu (or, if you are running Mac OS X, from the Reason menu).



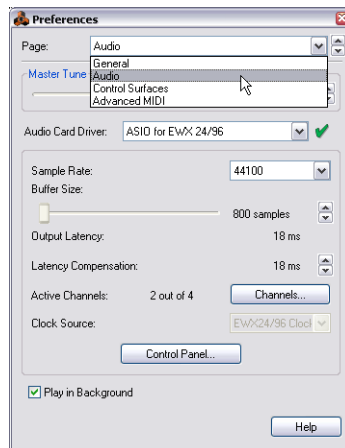
The Preferences dialog.

- ★ Described herein are only the most important settings in the Preferences. For information about other Preferences settings, see the Operation Manual pdf.

Setting up the Audio Hardware

In case this wasn't done in the Setup Wizard, you need to establish a connection between Reason and the audio hardware. This is done by selecting a driver - a software component that acts like a link between the program and the audio hardware. Proceed as follows:

1. In the Preferences dialog, use the pop-up menu at the top to select the Audio page.



2. Pull down the Audio Card Driver pop-up menu and select one of the options.

Which option to select depends on the platform and the audio hardware. If an option is not applicable to your setup it will be greyed out in the dialog.

Mac OS X

- **Select the option that corresponds to the hardware you want to use (the built-in audio connectors or some additional audio hardware that you have installed).**

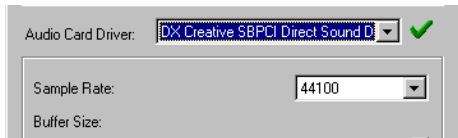
Windows

- **If you are using audio hardware for which there is a specific ASIO driver, you should select this.**

With an ASIO driver written specifically for the audio hardware, Reason can communicate more or less directly with the audio hardware. The benefits are lower latency (see below) and possibly better support for additional hardware features such as multiple outputs.

- **If there is no specific ASIO driver, you should select the Direct Sound driver for the audio hardware.**

This makes Reason communicate with the hardware via Direct Sound (a part of the Microsoft DirectX package). You need to have DirectX installed on your computer, and there must be a Direct Sound driver for the audio hardware.



The Direct Sound driver for a Creative SoundBlaster PCI card selected.

- **If the audio hardware doesn't support Direct Sound (i.e. there is no Direct Sound driver available for the audio hardware), select the MME driver.**

This makes use of Windows Multimedia Extensions, the part of Windows that handles audio, MIDI, etc. Using MME often results in larger latency values (see below).

About Latency and other Audio Settings

In the audio page, you will find a number of additional settings for audio. The most important ones are Buffer Size and the corresponding readout for Output Latency.



Latency is the delay between when audio is “sent” from the program and when you actually hear it. The latency in an audio system depends on the audio hardware, its drivers and their settings.

If the latency is large, you will notice that the sound is delayed when you play a device from a MIDI keyboard. You may also notice that reactions are delayed when adjusting controls on the device panels (for example, if you lower the volume of a device, you will not hear this immediately but after the latency time).

If you experience high latency values, you will need to make adjustments to your configuration.

- If available, use the Buffer Size slider to lower the latency.
- If this is greyed out, you may be able to lower the buffer size in the control panel for the audio hardware - click the Control Panel button to open this.

For more information, please consult the Operation Manual.

Setting up MIDI

In Reason, MIDI keyboards or remote control devices are called control surfaces. MIDI input from control surfaces is handled by a system called Remote. Here are some of the main features:

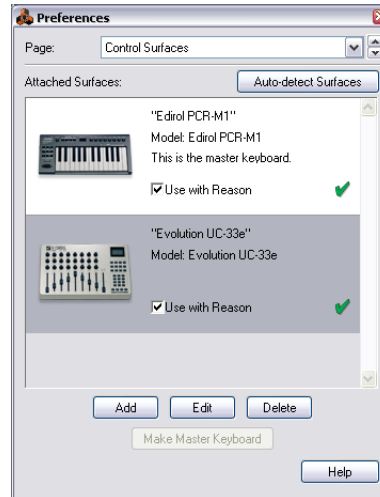
- **You can use any number of control surfaces at the same time.**
- **The program supports a large number of control surfaces out of the box - knobs, faders and buttons on the surfaces are automatically mapped to the most useful parameters on the Reason devices.**
You don't have to change the settings on the control surface to control different devices in Reason - if you change MIDI focus from a Subtractor track to a Malström track, the control surface will automatically adapt. You just set up your control surface once and for all for use with Reason - the program handles the rest!
- **For control surfaces that are not natively supported at this stage, you can use generic drivers.**
With the generic drivers, you can use templates or settings compatible with Reason 2.5, if available for the control surface. Note however, that Remote drivers for additional control surfaces will be added continuously - check our web page for more info.
- **By default, all control surfaces follow the sequencer MIDI input.**
This means that you set MIDI input to a track in the sequencer to route the control surface(s) to the track's device in the rack.
- **You can lock a control surface to a specific device in the rack.**
For example, you could have a master keyboard that follows MIDI input, while another control surface is locked to the main mixer in the rack. This way you can control levels and pans at all times. This is described in the Operation Manual.
- **You can use remote overrides to map a specific control on a surface to a specific Reason parameter or function.**
For example, you could override-map a knob or fader on your control surface to the mixer's master level fader. Or you could map buttons on your control surface to control Reason's transport (play, stop, record, etc.) at all times, regardless of which track has MIDI input in the sequencer. This is described in the Operation Manual.
- **Remote also supports some control surfaces with MIDI feedback.**
If you have such a control surface and it is supported by Reason 3.0, you can take full advantage of motorized faders, meters, displays, etc.
- **Among the Reason documentation you will find a document called "Control Surface Details".**
This contains useful information about the supported control surfaces.

In case you specified a master keyboard in the Setup Wizard, and you don't have any other control surfaces, you don't have to do anything else. But if you want to add additional control surfaces or edit your settings, this is done in the Preferences.

Adding a control surface

1. **Open the Preferences dialog and select the Control Surfaces page.**
2. **If your control surface is connected via USB (or if you have made a two-way MIDI connection), try clicking the Auto-detect Surfaces button.**

Reason scans all MIDI ports and tries to identify the connected control surfaces. Note that not all control surfaces support auto-detection.

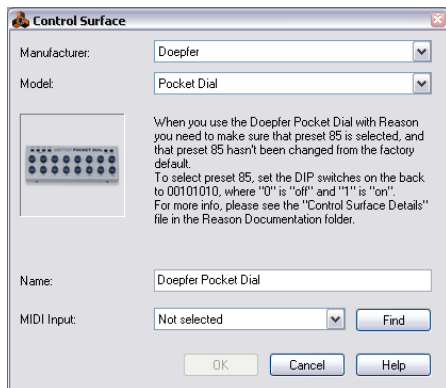


All found surfaces are listed in the Attached Surfaces list.

3. **To add a control surface manually, click the Add button.**
This brings up a new dialog.
4. **Select the manufacturer of your control surface from the Manufacturer pop-up menu.**
If you can't find it on the menu, see below.
5. **Select the model of your control surface from the Model pop-up menu.**
If you can't find it on the menu, see below.

6. An image of the selected control surface model is shown, often along with some information text - read this carefully.

For some control surfaces, you need to select a specific preset to use the surface with Reason - this is noted here.



7. Use the MIDI Input pop-up to select the input port to which you have connected the surface.

If in doubt, you can click the Find button and then tweak a control or play a key on the control surface to have Reason find the correct input port for you.

→ Some control surfaces may have more than one MIDI Input pop-up menu.

You need to select ports on all MIDI Input pop-up menus.

→ Some control surfaces will have a MIDI Output pop-up menu.

In some cases this labeled "Optional" - then you don't have to make a selection. In other cases, a MIDI Output is required. This is the case if the control surface uses MIDI feedback - motor fader, displays, etc.

8. If you like, you can rename your control surface in the Name field.

9. Click OK to add the surface.

→ Depending on the surface model, alerts may appear, reminding you to select a specific preset etc.

In some cases, Reason can restore a preset in the control surface to factory settings for you - you are then informed of this.

Finally you return to the Control Surfaces Preferences page, where your added surface is now listed.

If your control surface model isn't listed

If you can't find your control surface listed on the Manufacturer or Model pop-up menus when you try to add it, this means that there's no native support for that model. However, the program supports generic keyboards and controllers. Here's what to do:

→ Select "Other" on the Manufacturer pop-up menu and then select one of the three options on the Model pop-up menu.

or, if the Manufacturer is listed but not your specific model:

→ Select one of the three "Other" options on the Model pop-up menu:

In both cases, the options are:

- **Basic MIDI Keyboard**
Select this if you have a MIDI keyboard without programmable knobs, buttons or faders. This is used for playing only (including performance controllers such as pitch bend, mod wheel, etc.) - you cannot adjust Reason device parameters with this type of control surface.
- **MIDI Controller**
Select this if you have a MIDI controller with programmable knobs, buttons or faders (but without keyboard).
You need to set up your control surface so that the controllers send the correct MIDI CC messages, depending on which Reason device you want to control - check out the MIDI Implementation Chart in the Reason documentation. If your control surface has templates or presets for different Reason 2.5 devices, these can be used.
- **MIDI Keyboard with Controls**
Select this if you have a MIDI keyboard with programmable knobs, buttons or faders. Again, you need to set your controllers to send the right MIDI CCs.

After selecting a model, proceed with selecting MIDI input as described above.

About the master keyboard

One of the control surfaces can be the master keyboard. This is like any other control surface, but it must have a keyboard and it cannot be locked to a specific Reason device (in other words, it always follows the MIDI input to the sequencer). This is the surface you use to play the instrument devices in Reason.

→ The first surface with a keyboard that is added (or found by auto-detect) is automatically selected to be the master keyboard.

This is shown in the Attached Surfaces list on the Preferences page.

→ If you want to use another surface as master keyboard, select it in the list and click the "Make Master Keyboard" button.

You can only have one master keyboard.

→ If you don't want to use any master keyboard at all, select the current master keyboard surface and click the same button (which is now labeled "Use No Master Keyboard").

Other functions

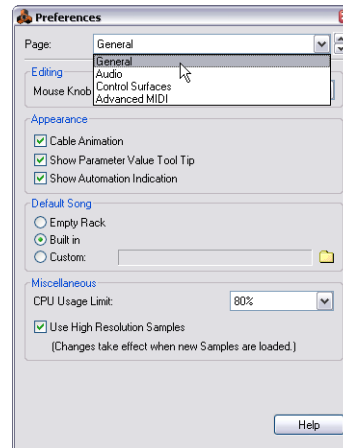
- **To edit a surface, double click it in the list (or select it and click Edit).**
This lets you change its name and MIDI port settings, if needed.
- **To delete a surface, select it in the list and click Delete.**
- **You can turn off a surface by deactivating its “Use with Reason” checkbox.**
This could be useful if the surface is connected to your system but you only want to use it with another program, etc.
- **There is also an “Advanced MIDI” page in the Preferences.**
This is only used for External Control MIDI buses and for MIDI Clock Sync input. All hands-on MIDI control is set up on the Control Surfaces page.

Setting the default song

Every time you start Reason, a simple default song opens. This default song contains a few devices and sequencer data and can be played. Every time you select “New” from the File menu, a default “template” song (without sequencer data) is opened, with a few selected devices. This serves as a suitable starting point for creating your own songs.

You can however decide exactly what you want the default song to look like, in the following way:

1. **Open the Preferences dialog from the Edit menu (or Reason menu if you are running Mac OS X).**
2. **Use the pop-up menu at the top of the Preferences dialog to select the General page.**



3. At the middle of this page, there is a section entitled “Default Song”.

You have three choices: “Empty Rack”, “Built In” and “Custom”.

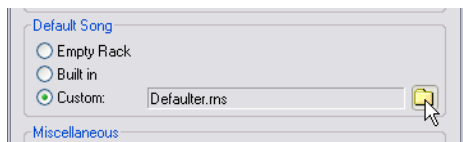


Select which one you want to use by clicking the corresponding radio button.

- Empty Rack - This is an empty rack. Well, almost empty, since it contains the Reason hardware interface.
- Built In - When this is selected, launching Reason will open a basic demo song. Selecting “New” from the File menu will open a template song with a few devices to start with, but no sequencer data.
Note that it is not possible to open these songs by regular means - via the browser - since they are not “independent”.rns-files, and thus do not reside anywhere in the Reason folder.
- Custom - This allows you to select a custom default song. Any Reason song can be used, so if you often create songs using the same or similar device setups, you can use a previously created song as the default song. This way, all new songs you create will have the same device setup.

➔ To select a custom default song, click the Folder icon to the right and browse to the desired Reason song.

The name of the selected song will then be displayed in the text box.





REASON

3

→ [Quick Tutorial](#)

About this Chapter

This chapter is a quick introduction to the basics in Reason, laid out as step-by-step tutorials. At the end of the chapter you will also find a “guided tour”, describing the different areas and devices in the program.

! Before you proceed with the tutorials, you should have connected your equipment and made settings for audio and MIDI as described in the previous chapters.

Playing a Song

1. If you haven't launched Reason yet, do so.
2. Pull down the File menu and select Open.
The Song Browser dialog appears.
3. Navigate to the Reason program folder.
4. Open the Demo Songs folder and select the song “Tutorial Song.rns”.
5. Click Open.
The document window for the song is displayed on screen. This consists of a “virtual rack” with devices (this song contains four instrument devices and two effects), a sequencer section and a transport panel.
6. Click the play button on the transport panel (at the bottom of the window).
Playback starts. If everything is properly connected, you should now hear Reason play!

The stop button. The play button.



7. Click the stop button to stop playback when you've heard enough.
Now, try out some real-time mixing:
8. Click the stop button again.
This moves the song position to the start of the song, allowing you to play the song from the beginning again.

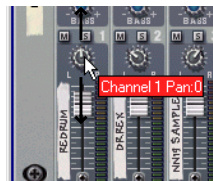
9. Near the top of the rack is a mixer device - make sure this is visible.
You may need to scroll the view using the vertical scrollbar to the right in the rack (or the scroll wheel on your mouse, if it is equipped with one).



If you look at the mixer, you will see that each mixer channel has a “tape strip” next to the volume fader. If a device is connected to a mixer channel, the tape strip is labeled with the device name. In this song, there are only four instrument devices, so only the four first mixer channels are labeled.



10. Click the play button to start playback.
11. While the song is playing, click and drag the faders to adjust the level of each instrument device.
12. Try changing the pan setting (stereo position) of a channel, by clicking the pan knob above the fader and dragging up or down.
Dragging up will turn the knob clockwise; dragging down will turn it counter-clockwise.



You may also want to add some effects to the music. In this song, there are two effect devices connected: a delay and a chorus/flanger. These are connected as send effects from the mixer, allowing you to specify how much of each mixer channel signal should be sent to each effect.

13. Raise the Aux send level knobs at the top of a mixer channel.

Send 1 is connected to the delay, while send 2 goes to the chorus/flanger.



The Aux sends.

Finally, let's try tweaking some controls on an actual instrument device, to change the sound. In this example we will use the Subtractor synthesizer device, but all devices have parameters that can be adjusted on the device panels in the same way.

Unless you have a very large screen, the Subtractor device isn't visible right now. You could use the scrollbar to scroll the rack down, but here's a quicker way:

14. In the sequencer area (above the transport panel), click on the name "Subtractor" in the track list to the left.

The rack is automatically scrolled to bring the Subtractor device into view.

15. Try adjusting some parameters while the song is playing.

You may for example want to tweak the "Filter 1 Freq" slider, to change the brightness of the synth bass sound.



That concludes the first tutorial! Now, let's move on to creating a Reason song from scratch.

Creating a new song

In this tutorial we will start with an empty rack, to let you add your own devices "from scratch".

1. If you like, close the current song by selecting Close from the File menu.

You can have several song documents open in Reason at the same time, but each song uses some memory and computing power, so it's good practice to close songs you don't need.

2. Pull down the File menu and select Open.

3. Navigate to the Reason program folder and open the Template Documents folder.

4. Select the file "Empty Rack.rns" and click Open.

A song document window appears. This consists of an (almost) empty rack and there are no tracks in the sequencer.

! Normally when you create a new song, you would select "New" from the File menu. This command opens the default song (see page 105). The built-in default song contains a few devices, but if you have set things up so that the default song is "Empty Rack.rns", you can just select "New" from the File menu, and ignore step 1 - 4 above. See page 105 for instructions on setting up the default song.

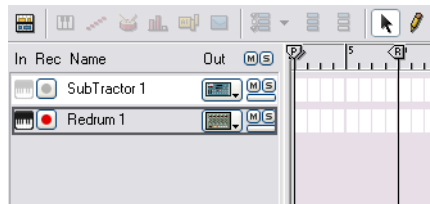
5. Pull down the Create menu and select Mixer 14:2.

A mixer device is created in the rack.

! The reason why you should start with a mixer device, is that all subsequent devices you add will then automatically be connected to a mixer channel.

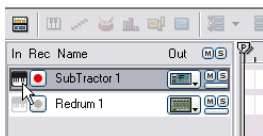
6. Pull down the Create menu and select Subtractor Analog Synth, and then Redrum Drum Computer.

You have now added two instrument devices to the rack. If you look in the sequencer, you will note that two tracks have automatically been added, one for the synthesizer and one for the drum machine.



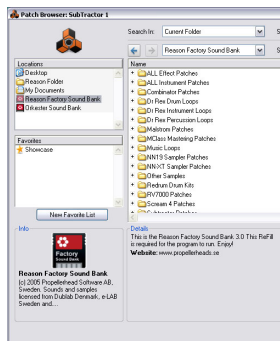
Now you could try playing the Subtractor synth “live” (provided you have a MIDI keyboard or similar hooked up):

7. **In the sequencer, click in the “In” column for the synthesizer track (to the left of the name), so that a keyboard symbol is highlighted.** This symbol indicates that incoming MIDI is routed to the track. And since the track is connected to the Subtractor device, any notes you play on your MIDI keyboard will be sent to the synth.



MIDI routed to the Subtractor track.

8. **Try playing your MIDI keyboard.** What you hear now is the default “Init” sound of the Subtractor, which may not be so inspiring. You could start tweaking the parameters to create a sound of your own, or you could select one of the included synth patches (and tweak this to your liking):
9. **Click the folder button on the Subtractor panel.** This opens the Patch Browser dialog.



10. **In the Browser “Locations” list to the left, click on “Reason Factory Sound Bank”.**

This is one huge ReFill containing a large number of patches and samples that are included with Reason when you purchase it.

11. **Double click the folder “Subtractor Patches”.** This contains a number of folders with different sound categories.

12. **Open one of the folders, and select a patch.** The patch is loaded in the background - you can try out the patch while playing your keyboard without closing the Browser. Try selecting other patches in the Browser to audition them. Click OK to confirm a selection and to close the Browser.

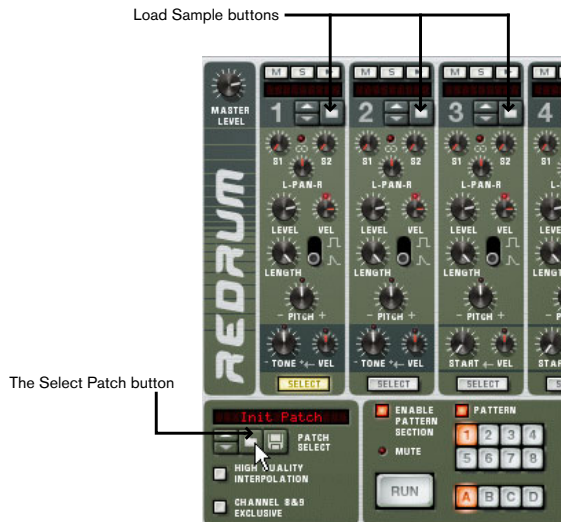
- **Once you have selected a patch this way, you can step between the patches in the same folder, by clicking the up and down arrow buttons next to the patch display.** Alternatively, you can click in the patch name display to bring up a context menu with all the patches in the folder.



It's possible to play the drum machine device via MIDI in the same way, but let's try creating a pattern with the built-in pattern sequencer instead:

13. Click the folder button in the lower left corner of the Redrum panel.

This opens the patch browser for the drum machine, allowing you to select a Redrum patch (a drum kit). Note that there are folder buttons for each drum sound channel too - these let you add drum samples one by one and create your own drum kits.

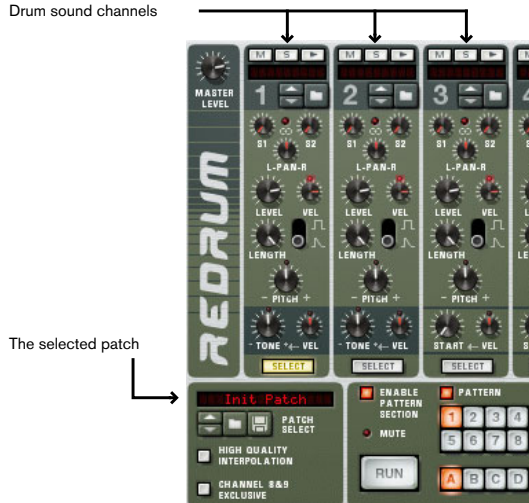


14. Select a Redrum patch in the same way as you selected a Subtractor patch.

The patches are located in category folders within the folder "Redrum Drum Kits" in the Reason Factory Sound Bank.

When you have selected a patch, you will note that a sample file name is displayed at the top of each drum sound channel in the drum machine. There may also be different parameter settings for the different drum sounds - all these settings are part of a Redrum patch.

Drum sound channels



15. Try out the drum sounds by clicking the audition buttons at the top of each drum sound channel.



Now, let's start building a pattern. By default, the empty patterns have sixteen steps, with each step corresponding to a sixteenth note (so that the length of a pattern is one 4/4 bar). To make things simple, we'll keep this setting for now.

16. Click the Run button on the Redrum device panel.

The pattern will start playing (as indicated by the running "LED" on the step buttons at the bottom of the device panel). Nothing will be heard, since you haven't added any drum beats yet.

17. Click the Select button for one of the drum sounds.

In Redrum, you add drum beats for one sound at the time.

18. Click on the first step button (marked 1).

The button lights up, indicating a drum beat.



You will now hear the sound of the selected drum on the first beat of each bar.

19. Add more drum beats by clicking other step buttons.

Clicking a lit step button will remove the beat.

- ★ You can add beats of different strength (velocity level) by adjusting the Dynamic switch. Exactly how each sound is affected by different velocity levels depends on the settings. You can also adjust the dynamics “on the fly” by pressing [Shift] or [Option] (Mac) / [Alt] (Windows) when you add beats. [Shift]-click for hard beats, [Option]/[Alt]-click for soft beats.



20. Select another drum sound (by clicking its Select button) and proceed in the same way until you have a drum pattern you want to use.

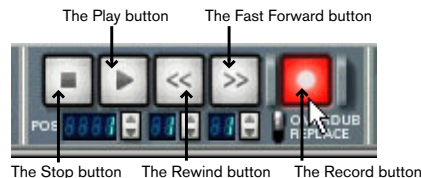
21. To stop the playback, click the Run button again.

Now try recording some synth notes in the sequencer:

22. Click in the In column for the synthesizer track in the sequencer so that the MIDI connector symbol appears.

23. Click the record button in the transport panel.

The button lights up, indicating record standby mode.



24. Click the play button.

Recording is activated, and the drum machine pattern automatically starts playing.

25. Play your MIDI keyboard while listening to the drum pattern.

26. When you're done, click the stop button.

27. Click stop again to move the song position to the beginning of the song.

You can also click and hold the rewind button.

28. Click play to listen to your recording.

Finally, let's record some automation of a synthesizer parameter. In this example, we automate the cutoff frequency of the filter (Filter 1 Freq), but you can automate any parameter you like.

29. Rewind the song to the beginning again.

30. Make sure the Overdub/Replace switch (just below the record button) is in the Overdub position.

This allows you to record more on the same track, without removing the previous recording.

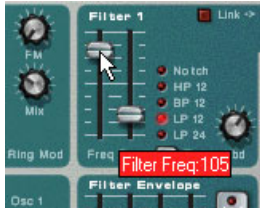


31. Click the record button and then the play button.

Recording starts. You will hear the recorded synth notes being played back.

32. Click and drag the Filter 1 Freq slider on the Subtractor panel.

The changes you make will be heard immediately.



33. Click stop twice to end recording and go back to the beginning of the song.

If you look at the Subtractor panel, you will note that there is a green frame around the filter slider now. This indicates that the parameter is automated.

34. Play back the song again.

You will see the filter slider moving, exactly as you moved it during recording.

This concludes the second tutorial!

Guided Tour

On the following pages you will find a brief “guided tour” through the program. This helps you get familiar with the different devices and their uses.

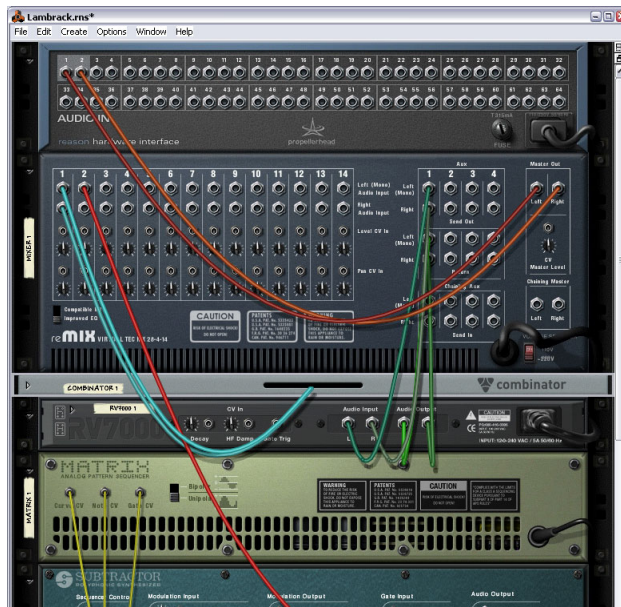
The Rack



This is the virtual rack, the heart of Reason. At the top of the rack you will always find the Hardware Interface, which allows Reason to communicate with the audio hardware and MIDI interfaces. Below this, you can add as many different devices you want (or as many as your computer can handle). Read more about the different devices below.

The Back

If you press [Tab] or select Toggle Rack Front/Rear on the Options menu, the rack will be “turned” to show you the back.



Here, the back panel of each device in the rack is shown. As you can see, connections between devices and mixers use red cables, connections to or from effect devices use green cables and CV connections (Control Voltage, used for controlling parameters or triggering sounds) use yellow cables. You can make connections by clicking and dragging from one “socket” to another on the back panels.

To turn the rack over again (to show the front panels), use the same command.

The Transport Panel

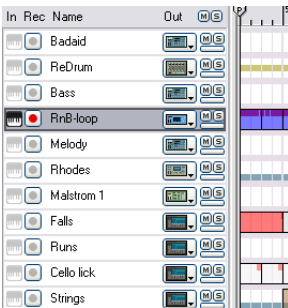


The panel at the bottom of each song document window is called the transport panel. It contains transport controls and settings that are global for the song, such as tempo and time signature, shuffle amount, CPU load indicator, etc.

The Sequencer

The sequencer is located in the area below the rack. This is where you record and edit notes, controllers, device parameter automation and pattern changes.

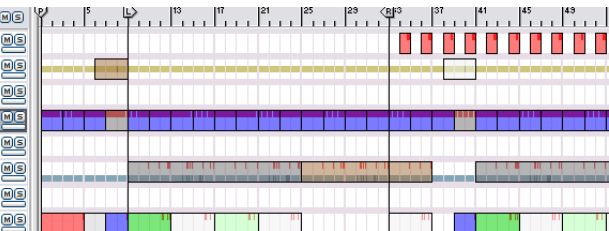
The left part of the sequencer area is the track list, showing the names of the sequencer tracks. The columns in the track list allow you to connect tracks to devices, route MIDI and mute or solo tracks.



The track list.

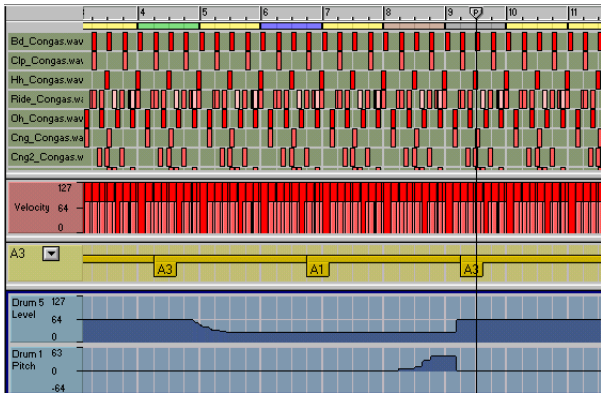
The right part of the sequencer area has two main modes, the arrange view and the edit view.

When the arrange view is selected, you will see the tracks lined up vertically, with the recorded events indicated as colored bars (red for notes, yellow for pattern changes and blue for controllers). A ruler at the top of the view shows the meter positions.



The sequencer with the arrange view selected.

When the edit view is selected, the right part of the sequencer area will contain one or several lanes, showing the recorded data in detail. There are specific lanes for editing notes, pattern changes, controller data, etc.



The edit view, with the drum lane, velocity lane, pattern lane and two controller lanes visible.

The Devices

The following devices are available in Reason:

Reason Hardware Interface



This device handles Reason's communication with your hardware.

The upper half of the hardware interface contains settings for MIDI input, allowing you to select a separate MIDI channel for each device when controlling Reason from an external multi-channel MIDI source.

! For standard MIDI control of one device at a time in Reason, you don't need to use the hardware interface (since the MIDI signals are routed through the sequencer, as described in the tutorials earlier in this chapter).

The lower half of the hardware interface contains audio output indicators with level meters. This is where you connect different devices to different outputs on your audio hardware. Reason supports up to 64 separate audio outputs. However, if you are only using audio hardware with standard stereo outputs, the connections to the audio hardware are automatically taken care of when you create a mixer device at the top of the rack.

! The Reason Hardware Interface is "riveted" into the rack, and cannot be removed.

Combinator



The Combinator allows you to create new "custom" devices by combining existing devices. Any combination of Reason devices can be added to the Combinator and then saved as a "Combi" patch. Example usage includes creating layered instruments, instrument/effect combinations and effect chains. Devices in a Combi can be mapped to velocity/key zones and the Combinator also features virtual knobs and buttons that can be assigned to any device parameter or function.

Mixer 14:2



This is a mixer with fourteen stereo channels, four stereo effect sends and a basic two-band EQ section. By connecting the different devices to different mixer channels (and the stereo output of the mixer to the hardware interface) you can listen to all your devices at the same time, adjust levels and pan, add effects and so on - just like on a physical mixer.

Line Mixer 6:2



This is a simple mixer with 6 stereo channels and one stereo effect send/return. It can be used in situations where basic mixing facilities will suffice. Ideal for mixing device outputs within Combinator patches.

Subtractor Analog Synth



The Subtractor is a polyphonic synthesizer laid out much like an advanced analog synth. It features two oscillators, two filters and a host of modulation functions, allowing for everything from fat basses to swirling pads and screaming lead sounds.

Malström Synth



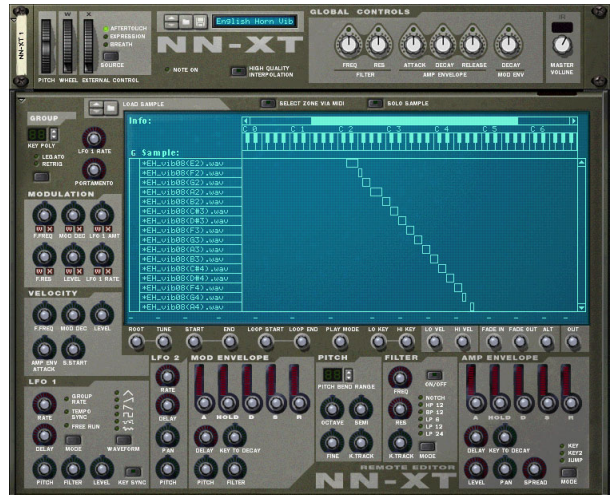
The Malström is a polyphonic synthesizer featuring two oscillators, two modulators, two filters, a waveshaper and a large number of modulation and routing options. It is based on the concept of Grainable Synthesis and makes it possible to produce amazingly abstract, sharp, distorted, undulating sounds.

NN-19 Digital Sampler



The NN-19 allows you to load samples (Wave, AIFF, SoundFonts or REX files) and create multi-sample patches by mapping samples across the keyboard. Once you have loaded one or several samples, you can modify the sound using synth-type parameters such as a filter, envelopes and an LFO.

NN-XT Digital Sampler



The NN-XT - just like the above mentioned NN-19 - lets you load samples (Wave, AIFF, SoundFonts or REX files) and map these across the keyboard to create multi-sample patches. The sound can then be modified using synth-type parameters; two LFOs, two envelopes and a filter.

In addition, the NN-XT also allows you to create layered sounds, where two or more samples can be played simultaneously. This is done by mapping different samples across the same keyboard range. Another useful feature is the possibility to set up velocity switched key maps. This lets you control which samples in a layered key map will actually sound depending on how hard or soft you play on your MIDI keyboard.

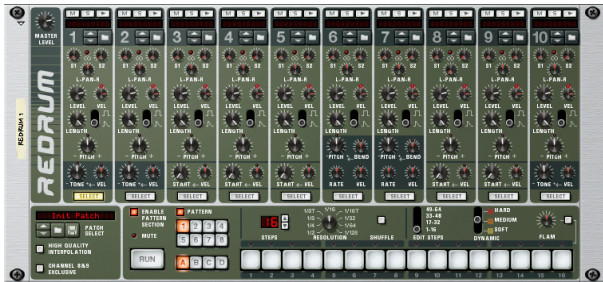
Dr. Rex Loop Player



The Dr.Rex Loop Player plays REX files - audio files created in ReCycle, another Propellerhead Software product. ReCycle is a program designed especially for working with sampled loops. By “slicing” a loop and making separate samples of each beat, ReCycle makes it possible to change the tempo of loops without affecting the pitch and to edit the loop as if it were built up of individual sounds.

After loading a REX file into the Dr. Rex Loop Player, you can play it back in virtually any tempo, make settings for individual slices, extract MIDI playback data and process the loop with the built-in filter, LFO and envelopes. You can also play the individual slices via MIDI or from the sequencer - each slice has a specific note number (C1 for the first slice, C#1 for the next and so on). A number of REX files are included in the Reason Factory Sound Bank.

Redrum Drum Computer



The Redrum is a sample-based drum machine with ten drum sound channels. You can load samples (Wave, AIFF, SoundFont files and REX slices) individually for each channel, or open patches, which are complete drum kits (a number of which are included in the Reason Factory Sound Bank). Each sound channel has settings for pitch, level, velocity response, etc.

There is a built-in pattern sequencer, allowing you to create classic drum machine patterns, complete with shuffle and flam options. It is also possible to use Redrum as a sound module, playing it live from an external MIDI controller or from the main Reason sequencer. You may for example have the pattern sequencer play a basic drum pattern, and add fills and extras in the main sequencer. As with the Dr.Rex loop player, each drum sound has a specific note number (C1 for drum sound 1, C#1 for drum sound 2 and so on).

MClass Mastering effects



MClass Mastering Suite Combi.

The MClass Mastering effects consists of four high quality sound processors, suitable for (but not in any way restricted to) use as mastering effects, i.e. to process the final mixed output from Reason. The MClass effects can be selected as a Combi (with all four effects chained), or as individual effects. The Factory Sound Bank contains MClass Combi patches with settings optimized for various mastering and sound enhancement applications. The MClass series of effects consists of the following effects:

MClass Equalizer



This is a two-band fully parametric equalizer, with added high and low shelving bands and a low cut (rumble) filter. In addition there is a curve display giving graphic feedback of your settings.

MClass Stereo Imager



This device splits the signal in low and high frequencies (user definable), allowing you to adjust the stereo width independently for the low and high bands. A typical application is to make the high band wider, and the low band more narrow (mono).

MClass Compressor



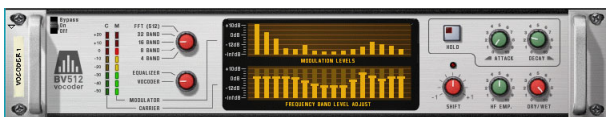
This is a single-band compressor with features such as sidechain input, "soft knee" compression, and adaptive release. It also differs from the COMP-01 in that it doesn't have automatic make-up gain, allowing for other applications than simply keeping the level even.

MClass Maximizer



This is a loudness maximizer, allowing you to significantly raise the perceived loudness without risking clipping distortion. It consists of an input gain section, a limiter section (with a "look ahead" function), a soft clip section and a level meter.

BV512 Vocoder



The BV512 is an advanced vocoder device with a variable number of filter bands and a unique 1024-point FFT vocoding mode (equivalent of 512-band vocoding) for very precise and high quality vocoded speech. By connecting the BV512 to two instrument devices, you can produce anything from vocoded speech, singing or drums to weird special effects.

Scream 4 Sound Destruction Unit



This is an extremely versatile sound destruction device, featuring various kinds of distortion, signal warping and transformation effects. There are three main sections: "Damage" (where you select a sound mangling algorithm and make settings), "Cut" (a three band EQ) and "Body" (a resonant body or cabinet simulator, excellent for making the sound come alive).

RV7000 Advanced Reverb



The RV7000 is a high quality reverb processor with nine different reverb and echo algorithms, ranging from rooms and halls to special effects. The RV7000 also contains an equalizer and a gate section, making it possible to get virtually any kind of reverb character, including gated reverb.

RV-7 Digital Reverb



This is a reverb effect with ten different reverb algorithms, ranging from hall and room simulations to special effects. You can fine-tune the effect with the knobs on the device panel if you like. The reverb is normally used as a send effect.

DDL Digital Delay Line



This is a basic digital delay, useful for echoes, slapback, doubling, etc. The delay time can be set in steps based on and synchronized to the current song tempo, or in milliseconds for free-running delays. The maximum delay time is 2.0 seconds.

D-11 Foldback Distortion



The D-11 is a simple but highly effective distortion device, that can convert melow synth sounds to screaming leads and basses, add grit and dirt to drum patterns or loops, etc.

ECF-42 Envelope Controlled Filter



This is a synth-style resonant filter with three different filter modes. You can either use it as a "static" filter (and vary the filter frequency on the device panel, or via Control Voltage from another device) or use the built-in envelope to create rhythmic filter effects of various kinds. The envelope can for example be triggered by a drum machine or the Matrix pattern sequencer.

CF-101 Chorus/Flanger



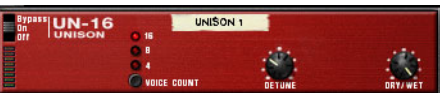
The CF-101 does double duty as chorus (for making textures rich and swirly) and flanger (for creating sweeping, metallic effects). You can use it as a send effect or as an insert effect (connected between an instrument device and a mixer).

PH-90 Phaser



The PH-90 is a stereo phaser effect. It has six parameters available on the device panel, allowing you to create both subtle sweeping sounds and extreme, swirling special effects.

UN-16 Unison



The UN-16 simulates the sound of several detuned voices playing the same notes simultaneously, producing a rich chorus-like effect with the voices spread across the stereo field if you like.

COMP-01 Compressor



This is a combined compressor and limiter. It will affect the dynamics of the sound, by boosting low levels and attenuating loud sounds. Use it for keeping levels even (from individual devices or the whole mix), for adding punch and power to drums, etc.

PEQ2 Two Band Parametric EQ



While the mixer device has basic two-band EQ on each channel, sometimes you may need some more precise control over the tone color. For this purpose, you can use the PEQ2. This device contains two independent parametric equalizers, with controls for frequency, gain and Q value.

Spider Audio Merger & Splitter



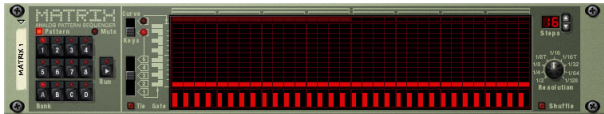
This is not an effect device, but a utility. With the Spider Audio you can merge up to four audio input signals into one output, as well as split one audio input signal into four outputs. This makes audio signal routing much more flexible and allows for very creative patching and connections.

Spider CV Merger & Splitter



Again, this is not an effect device, but a utility. With the Spider CV you can merge up to four CV input signals into one CV output, as well as split CV or Gate inputs into several outputs (one of which can be inverted). One use for the Spider CV is to split Gate and Note CV to control several instrument devices with one Matrix.

The Matrix Pattern Sequencer



The Matrix is a stand-alone pattern sequencer, somewhat similar to a vintage analog sequencer. A Matrix pattern can have between 1 and 32 steps, and for each step you can specify which control voltage levels should be sent out from the three separate CV outputs on the back of the device. If you like, you could view this as having three separate pattern sequencers in one.

By connecting the Matrix to e.g. a synth device, you can have the pattern sequencer play the device (for a repeating synth pattern), or control various parameters, for rhythmic effects that you cannot obtain using the synth device alone.

ReBirth Input Machine



This device allows you to use Reason in conjunction with Propellerheads' classic ReBirth application. The audio from ReBirth will be "streamed" via the ReWire protocol into Reason. By routing the different outputs on the ReBirth Input Machine to different mixer channels, you can mix the sound of ReBirth with the sound of Reason, add effects to separate ReBirth sounds, etc.



REASON

4

→ Common Operations and Concepts

About this Chapter

This chapter describes some general methods and techniques employed throughout Reason. It also contains some terminology, useful for better understanding of the program and the manual. To make your work with Reason as effective and rewarding as possible, we recommend that you read this chapter.

Conventions in the Manual

This manual describes both the Macintosh version and the Windows version of Reason. Wherever the versions differ, this is clearly stated in the text.

About Key Commands

In the manual, computer key commands are indicated by brackets. For example, “press [Shift]-[C]” would mean “hold down the [Shift] key and press the [C] key”. However, some modifier keys are different on Mac and PC computers, respectively. Whenever this is the case, the manual separates the commands with “(Mac)” and “(Windows)” indications.

Making Settings

Since a large part of Reason is laid out like a “real” effect and synth rack, almost all parameters are designed like their real world counterparts - mixer faders, synth knobs, transport buttons, etc. How to make adjustments to these is described separately for each type of parameter below:

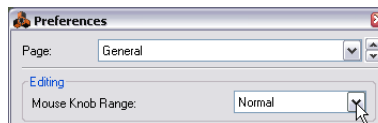
Knobs



To “turn” a knob, point at it, click the mouse button and drag up or down (as if the knob was a vertical slider). Dragging upwards turns the knob to the right and vice versa.

- **If you press [Shift] and drag, the knob will turn slower, allowing for higher precision.**

You can also adjust the knob precision with the “Mouse Knob Range” setting on the General page in the Preferences dialog. This dialog is opened from the Edit menu (or from the Reason menu if you are running Mac OS X).



- **To reset a knob to its default value (usually zero, center pan or similar), press [Command] (Mac) or [Ctrl] (Win) and click on it.**

Sliders



To move a slider, click on the slider handle and drag up or down.

- **You can also click anywhere on the slider to instantly move the handle to that position.**
- **If you press [Shift] and drag, the slider will move slower, allowing for higher precision.**

Multi Mode Selectors

Some parameters allow you to select one of several modes. There are two different graphical representations of this in Reason:



This type of multi mode selector consists of a button with the different modes listed above. You can either click the button to step through the modes or click directly on one of the modes to select it. The currently selected mode is indicated by a lit LED.



This type of multi mode selector is a switch with more than two settings. To change mode, click and drag the switch, or click directly at the desired switch position (just as when adjusting a slider).

Buttons



Many modes and functions are controlled by clicking buttons. Most of the buttons in Reason have a “built-in” LED, indicating whether the button is pressed or not.

Numerical Values

In Reason, numerical values are displayed in alphanumeric readouts with “spin controls” (up/down arrow buttons) on the side. There are two ways to change numerical values:

- **By using the up and down buttons on the spin controls.**
To adjust a value in single steps, click on its up or down arrow button. To scroll a value continuously, click on an arrow button and keep the mouse button pressed.



- **By clicking in the actual alphanumeric display and dragging up or down with the mouse button pressed.**

This allows you to make coarse adjustments very quickly.



- ★ **This type of control is also used for some parameters that are not purely “numerical” (e.g. reverb algorithms and synth oscillator waveforms).**

The position values on the transport panel can also be edited by double clicking and typing a new position.

Tool Tips

If you position the pointer over a parameter on a device panel and wait a moment, a tool tip will appear. This displays the name of the parameter and its current value. This helps you fine-tune settings, set several parameters to the same value, etc.



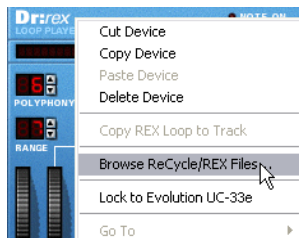
✪ You can turn off these tool tips by deactivating the option **Show Parameter Value Tool Tip** on the **Preferences-General** page.

Context menus

Context menus are “tailored” to contain the relevant menu items only, allowing you to work quicker and more efficiently with Reason.

→ **To bring up a context menu, click with the right mouse button (Windows) or press [Ctrl] and click (Mac).**

If you are using a Macintosh with a two button mouse, you may want to set this up so that clicking the right mouse button generates a [Ctrl]-click. This way, you can right-click to bring up context menus.



The Dr. REX context menu.

The contents of the context menu depends on where you click. Basically, the following different context menu types are available:

Device Context Menus

If you click somewhere on a device in the rack (but not on a control), the context menu will contain the following items:

- Cut, Copy, Paste and Delete Device items, allowing you to rearrange and manage the devices in the rack.
- A Go To submenu, listing all devices connected to the current device. Selecting a device from the Go To submenu scrolls the rack to bring that device into view.
- A duplicate of the Create menu, allowing you to create new devices.
- If the device is pattern-based, there will be various pattern functions (Cut/Copy/Paste, Clear, Shift, Randomize, etc). These affect the currently selected pattern in the device.
- If the device uses Patches, there will be functions for managing Patches.
- Depending on the device there may also be various device-specific functions available. For example, the drum machine device has functions for manipulating the pattern for the selected drum sound only, etc.

Parameter Context Menus

If you click on an automatable control (a synth parameter knob, a fader, etc), the context menu will contain the following items:

- Functions for clearing and editing the recorded automation data for the control.
- Functions for associating computer keyboard commands and/or MIDI messages to the parameter (allowing you to remote control parameters from a MIDI device or the computer keyboard).

“Empty Rack” Context Menu

If you click in an empty section of the rack, the context menu will contain the following items:

- A Paste Device item, allowing you to paste any copied or cut devices into the rack.
- A duplicate of the Create menu, allowing you to create new devices.

Sequencer Context Menus

If you click in the sequencer, the context menu will contain items related to editing Tracks, Groups and Events. The available items will differ depending on in which area or lane you click (Track list, Key Edit lane, etc.), and depending on whether you click on an event or not. For example, the sequencer context menus contain functions for inserting or removing bars, adding tracks, and grouping, changing or deleting events. See the Operation Manual pdf for details.

Undo

Virtually all actions in Reason can be undone. This includes creation, deletion and reordering of devices in the Rack, parameter value adjustments, editing in the sequencer and tempo/time signature adjustments. You can undo up to 10 actions.

→ To undo the latest action, select “Undo” from the Edit menu or press [Command]/[Ctrl]-[Z].

The action to be undone is indicated next to the Undo command on the Edit menu. For example, if your latest action was to delete some device(s) from the Rack, the Edit menu will say “Undo Delete Devices”.



→ To redo the last undone action (“undo the undo operation”), select “Redo” from the Edit menu or press [Command]/[Ctrl]-[Y].

Similarly, the action to be redone is shown on the Edit menu.

About Multiple Undos

The concept of multiple undos may require an explanation: You can undo up to 10 actions, or in other words, Reason has an Undo History with up to ten steps. Let's say you have performed the following actions:

1. Created a mixer.
2. Created a synth device.
3. Adjusted the Amp Envelope Attack time on the synth.
4. Changed the panning for the synth device in the mixer.
5. Adjusted the playback tempo in the transport panel.

After these five actions, the Undo History will look as follows:

UNDO	
5. Adjust tempo	
4. Change pan	
3. Adjust Attack	
2. Create Synth Device	
1. Create Mixer Device	

If you now select Undo, your latest action (the tempo change) will be undone, and moved to a “Redo list”:

UNDO	REDO
4. Change pan	
3. Adjust Attack	
2. Create Synth Device	
1. Create Mixer Device	
	5. Adjust tempo

Selecting Undo again undoes the next action in the list (the panning adjustment):

UNDO	REDO
3. Adjust Attack	
2. Create Synth Device	
1. Create Mixer Device	
	4. Change pan
	5. Adjust tempo

If you now select Redo, the last undone action will be redone. In this case, your panning adjustment will be performed again (and added to the Undo History again):

UNDO	REDO
4. Change pan	
3. Adjust Attack	
2. Create Synth Device	
1. Create Mixer Device	
	4. Change pan
	5. Adjust tempo

At this point, you still have the option to Redo the tempo change. But if you instead would perform another action (e.g. change the level of the synth device in the mixer), this would become the action at the top of the Undo History - and the Redo list would be cleared.

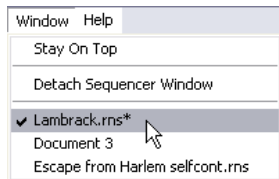
UNDO	REDO
5. Change level	
4. Change pan	
3. Adjust Attack	
2. Create Synth Device	
1. Create Mixer Device	
	(empty)

Now you can no longer redo the undone tempo change!

Window Techniques

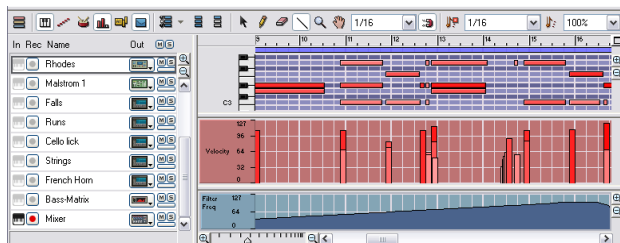
Using more than one Reason Song window

You can have several Reason Songs open at the same time. Each will appear in a separate Reason window, complete with rack, sequencer and transport bar areas. Each window can be moved, minimized and resized using standard Mac/Windows procedures.

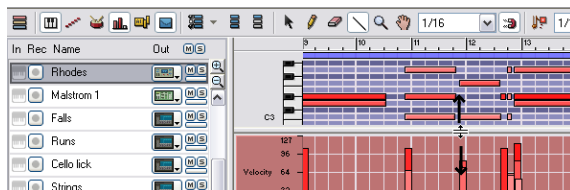


Views, Panes and Dividers

On screen, Reason is divided into different areas or "panes". The most obvious example is the rack and the sequencer area, but you will also find that the right part of the sequencer area can be divided into several horizontal lanes (for editing different aspects of your recordings).



The borders between the lanes are called dividers. You can adjust the height of the lanes by clicking on their divider and dragging up or down. Enlarging the upper lane will shrink the lower and vice versa.



Detaching the sequencer

You can detach the sequencer pane and turn it into a separate window. This allows you to make the sequencer wider than the rack and use the width of the computer screen more effectively. See page 60.

Scrolling and Zooming

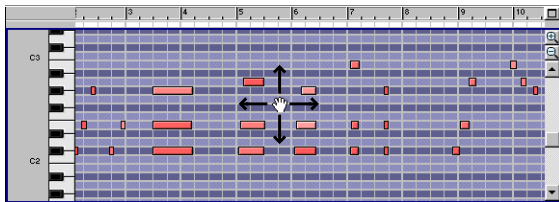
Reason offers a few different options for scrolling and zooming in the rack and the sequencer.

Scrolling with the scrollbars

Whenever there is information “outside the screen”, horizontal and/or vertical scrollbars will appear. For example, if there are more devices in the rack than can be shown at one time, you will be able to scroll the rack up or down by using the vertical scrollbar to the right of the rack.

Scrolling with the Hand tool

In the sequencer, you can also use the Hand tool for scrolling the view. Just select the Hand tool and click in a lane, keep the mouse button pressed and drag in the desired direction.



Scrolling the Key edit lane with the Hand tool.

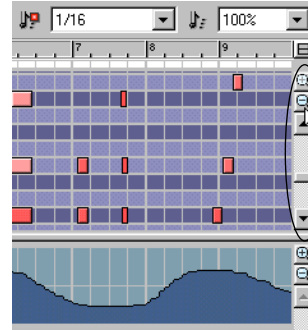
- ⚙️ You can scroll in any direction as long as the lane allows it (the Velocity lane for example is only possible to scroll horizontally). By holding down [Shift] while you drag however, you can limit the scrolling direction to horizontal or vertical only.

Zooming with the magnification sliders

Some areas also allow you to zoom in or out using magnification controls. Either click the “+” or “-” magnification icon to zoom in or out respectively, or click and drag the magnification slider.



- ➔ Where applicable, different panes can be scrolled and zoomed individually.



In the sequencer, there are separate view controls for the Key edit lane and the Controller lane.

Zooming with the Magnifying Glass tool

Another way of zooming in the sequencer is to use the Magnifying Glass tool. This tool lets you zoom in and out both horizontally and vertically just like the magnification sliders do. However, the Magnifying Glass tool offers a few more possibilities.

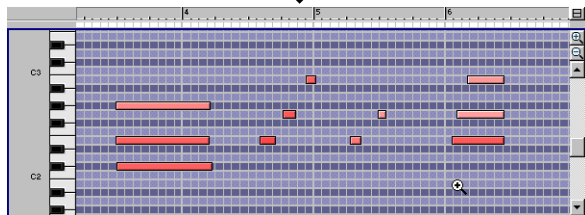
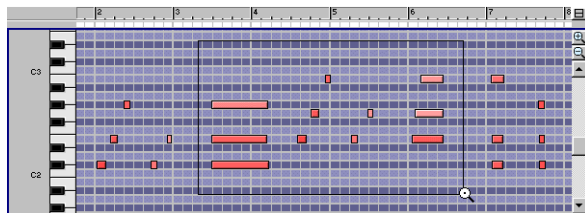
The following applies:

- ➔ By clicking once in a lane with the Magnifying Glass, you zoom in by the same amount as when clicking the “+” icon on the magnification slider **twice**.
- ➔ To zoom out with the Magnifying Glass, click while keeping [Option] (Mac)/[Ctrl] (Windows) pressed.
You'll notice that the “+” sign in the Magnifying Glass tool changes to a “-” sign.
- ➔ If the lane has a vertical magnification slider as well, clicking with the Magnifying Glass will also zoom in/out vertically by the same amount as when clicking the “+” and “-” icons on the magnification slider **once**.
By holding down [Shift] when clicking, you disable vertical zooming.

- **You can also click and drag with the Magnifying Glass to create a selection rectangle.**

The view will then be zoomed in so that the selected area fills the lane.

Enclosing these notes in a selection rectangle...



...will zoom in so that they fill the view.

Scrolling and zooming with the mouse wheel

If you're using a mouse equipped with a scroll wheel, this can be used for the following scrolling and zooming operations:

- **Scrolling up and down in both the rack and in the sequencer.**
- **By simultaneously holding down [Shift] you can scroll left and right in the sequencer.**
- **By holding down [Command] (Mac)/[Ctrl] (Windows), you can zoom in and out *vertically* in the sequencer.**
- **By holding down [Shift]-[Command] (Mac)/[Shift]-[Ctrl] (Windows), you can zoom in and out *horizontally* in the sequencer.**



REASON

5

→ Audio Basics

About this chapter

This chapter contains some useful information about how audio is handled by Reason. Some of it may seem a bit technical, but we recommend that you read it, to get the most out of Reason.

How Reason communicates with your audio hardware

Reason generates and plays back digital audio - a stream of numerical values in the form of ones and zeroes. For you to be able to hear anything, this must be converted to analog audio and sent to some kind of listening equipment (a set of speakers, headphones, etc.). This conversion is most often handled by the audio card installed in your computer (on the Macintosh you can use the built-in audio hardware if you don't have additional audio hardware installed).

To deliver the digital audio to the audio hardware, Reason uses the driver you have selected in the Preferences dialog (see page 13). In the rack on screen, this connection is represented by the Reason Hardware Interface.



The Hardware Interface is always located at the top of the rack.

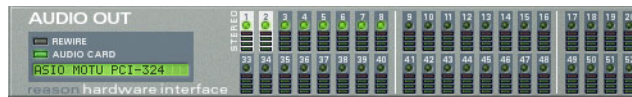
! If you are using ReWire, Reason will instead feed the digital audio to the ReWire master application (typically an audio sequencer program), which in turn handles the communication with the audio hardware. This is described in the Operation Manual pdf.

The Reason Hardware Interface contains 64 output "sockets", each with an indicator and a level meter. Each one of these indicators represents a connection to an output on your audio hardware (or a ReWire channel to another application if you are using ReWire - see the Operation Manual pdf).

However, the number of outputs available depends on the number of outputs on your audio hardware. For example, if you are using a standard sound card with stereo outputs (or the built-in audio hardware on the Mac), only the first two outputs will be available. In the Hardware Interface device, the green indicators are lit for all currently available outputs.



In this case, a standard stereo audio card is used, and only the first two outputs (marked "Stereo" on the device panel) are available.



Here, an audio card with eight outputs is used.

To send the sound of a device in the rack to a specific output, you route the device output to the corresponding "socket" on the Hardware Interface. This is done by using the "virtual patch cables" on the back of the rack, as described on page 51. In most cases, you will want to connect a mixer device to the Stereo outputs (outputs 1 and 2).

About Sample Rates and Resolutions

Sample rate and resolution are properties of digital audio, which determine the quality of the sound. Generally, higher sample rate and resolution result in better audio quality (but also larger audio files and higher demands on computer performance and audio hardware). This table shows some common sample rate/resolution combinations:

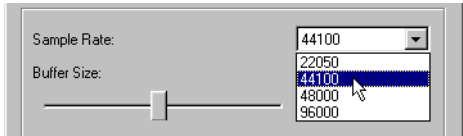
Sample rate:	Resolution:	Comment:
22.05 kHz	8 bit	Typically used in situations where small file size is more important than audio quality, such as games, some multimedia applications, sound files on the Internet, etc.
44.1 kHz	16 bit	This is the format used on audio CDs (often called "CD Quality audio").
44.1 kHz – 96 kHz	24 bit	These are formats used in professional studios and high-end recording equipment.

To cater for all different situations, Reason supports multiple sample rates and resolutions. This applies to the following areas:

Playing back

Reason handles all internal audio processing in 32-bit floating point resolution. However, the resolution of the output audio is determined by the audio hardware. That is, if you have a 24-bit audio card, Reason will create audio in 24-bit resolution, and if you have a 16-bit audio card, audio will be in 16-bit resolution.

The playback sample rate can be specified in the Preferences-Audio dialog (accessed from the Reason menu or Edit menu depending on whether you are running Mac OS X or not):

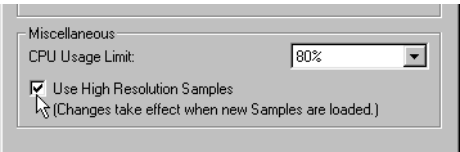


Note that the available options on this pop-up menu depend on which sample rates are supported by the audio hardware. Most standard sound cards support 44.1 kHz and various lower sample rates, in which case you should select 44.1 kHz for best audio quality.

About using high resolution audio

Reason has the capability to play back samples with practically any resolution. This means that if for instance 24-bit samples are loaded in a sampler or the ReDrum, playback of the samples can be in 24-bit resolution as well. If you are using such samples and want Reason to play them back in their original high resolution, proceed as follows:

1. **Open the Preferences from the Edit menu or Reason menu, and select the General page.**
2. **Under “Miscellaneous” at the bottom of the page, make sure the option “Use High Resolution Samples” is checked.**



If this is activated, and if your audio card supports it, Reason will play back high resolution samples in their original resolution. If this option is not activated, Reason will play back all samples in 16-bit resolution, regardless of their original resolution.

Exporting audio

Reason can export audio, i.e. mix down the song or a section of the song as an audio file (see page 106 for details). When you do this, you will be asked to specify a resolution (16 or 24 bit) and sample rate (11–96 kHz) for the file.

★ **If you plan to open the exported file in another application, you should select a format that is supported by the application. If you're uncertain, 16 bit/44.1 kHz is a safe bet.**

Importing audio

When loading samples or ReCycle files into the samplers, the drum machine device or the loop player, Reason supports files of a large number of sample rates and resolutions. You can use files of different formats in the same device - one drum sound can be an 8-bit sample, the next a 16-bit sample, etc.

About Audio Levels

When playing back in Reason, you should keep an eye on the Audio Out Clipping indicator on the transport panel. If this lights up, the audio level is too high, resulting in clipping (digital distortion).



The indicator will stay lit for a short moment, to make it easier to spot.

→ **To remedy this, lower the master level on the mixer (or other device) that is connected to the Hardware Interface, until Audio Out Clipping doesn't light up on playback.**

You could also use the MClass Maximizer to ensure that clipping never occurs - this is described in the Operation Manual pdf.

! **Note that it doesn't matter if the level meters on the individual devices (effects, mixer channels, etc) "hit the red". Clipping can only occur in the Hardware Interface.**

The technical reason for this is that internally, Reason uses high resolution floating point processing, which ensures high audio quality and virtually limitless headroom. In the Audio Hardware device, the floating point audio is converted to the resolution used by the audio hardware, and that's where clipping may occur.

If you are using multiple outputs

If you are using audio hardware with more than two outputs, you may have different devices connected to different outputs in the Hardware Interface. If the Audio Out Clipping indicator lights up, you should play back the section again while checking the Hardware Interface. Each output socket has a level meter - if the red meter segment lights up, the output is clipping. Lower the output level of the device connected to the clipping output, until no clipping occurs.



Clipping on the stereo outputs.

If you are using ReWire

If you are streaming audio to another application using the ReWire protocol, clipping can not happen in Reason. This is because the conversion from floating point audio happens in the other audio application. See the Operation Manual pdf for more information about ReWire.

Master Tune

By default, Reason plays back a "middle A" at 440 Hz, which is the standard tuning in most instruments. However, if you are playing Reason together with other instruments, you may want to adjust the tuning:

1. **Pull down the Edit menu (or Reason menu, under Mac OS X) and select Preferences...**
2. **Use the pop-up menu at the top of the Preferences dialog to select the Audio page.**
3. **Adjust the global tuning with the Master Tune control.**
If you like, you can adjust this during playback. Note that this affects the tuning of all sound sources in Reason, including the drum machine and loop player.



REASON

6

→ Managing the Rack

About this Chapter

As you have seen by now, the central part of Reason is the rack. This is where you create and configure your devices, and make parameter settings. This chapter describes all the procedures for managing the rack, that is, procedures and techniques common to all devices. Device parameter specifics are described in the Operation Manual pdf.

Navigating in the Rack

If the rack contains more than a few devices, the whole rack will probably not “fit” on screen. To scroll the rack up or down, use one of the following methods:

- ➔ **Use the scrollbar to the right of the rack to scroll continuously up or down.**
- ➔ **If you’re using a mouse equipped with a scroll wheel, you can use it to scroll up or down.**
- ➔ **Use the Page Up/Page Down buttons on the computer keyboard to move the view one “full screen” up or down.**
- ➔ **Use the Home or End buttons on the computer keyboard to scroll the top or bottom of the rack.**
- ➔ **Pull down a device context menu and select another device from the Go To submenu.**

The rack scrolls to the device you select.

- ★ **When you select a device or its sequencer track (see page 61), Reason will automatically scroll the rack to make the device visible.**

Note that you can enlarge the rack area by clicking its lower edge (the divider between the rack and the sequencer area) and dragging downwards. This will shrink the sequencer area and make more of the rack visible (alternatively, you can detach the sequencer from the rack altogether. This is described on page 60). You can also make the rack fill the window by clicking the maximize button above the scrollbar to the right.



The rack maximize button.

Creating Devices

To create a new device, select the desired item on the Create menu. This menu is available both on the main menu bar and on the context menus (see page 38 for an introduction to context menus).

Sequencer Track
Create Device by Browsing Patches...
Combinator
Mixer 14:2
Line Mixer 6:2
SubTractor Analog Synthesizer
Malstrom Grantable Synthesizer
NH15 Digital Sampler
NH-VT Advanced Sampler
Dr.REX Loop Player
Redrum Drum Computer
MClass Mastering Suite Combi
MClass Equalizer
MClass Stereo Imager
MClass Compressor
MClass Maximizer
RV7000 Advanced Reverb
Scream 4 Distortion
BVS12 Digital Vocoder
RV-7 Digital Reverb
DDL-1 Digital Delay Line
D-11 Feedback Distortion
ECF-42 Envelope Controlled Filter
CF-101 Chorus/Flanger
PH-90 Phaser
UN-16 Unison
COMP-01 Compressor/Limiter
PEQ-2 Two-Band Parametric EQ
Spider Audio Merger & Splitter
Spider CV Merger & Splitter
Matrix Pattern Sequencer
ReBirth Input Machine

Go To	Sequencer Track for Malstrom 1
Create	Sequencer Track
Combine	Create Device by Browsing Patches...
Uncombine	
	Combinator
	Mixer 14:2
	Line Mixer 6:2
	SubTractor Analog Synthesizer
	Malstrom Grantable Synthesizer
	NH15 Digital Sampler
	NH-VT Advanced Sampler
	Dr.REX Loop Player
	Redrum Drum Computer
	MClass Mastering Suite Combi
	MClass Equalizer
	MClass Stereo Imager
	MClass Compressor
	MClass Maximizer
	RV7000 Advanced Reverb
	Scream 4 Distortion
	BVS12 Digital Vocoder
	RV-7 Digital Reverb
	DDL-1 Digital Delay Line
	D-11 Feedback Distortion
	ECF-42 Envelope Controlled Filter
	CF-101 Chorus/Flanger
	PH-90 Phaser
	UN-16 Unison
	COMP-01 Compressor/Limiter
	PEQ-2 Two-Band Parametric EQ
	Spider Audio Merger & Splitter
	Spider CV Merger & Splitter
	Matrix Pattern Sequencer
	ReBirth Input Machine

The Create menu on the main menu bar and on a context menu.

- ➔ **The new device is added directly below the currently selected device in the rack.**
If no device is selected, the new device is added at the bottom of the rack.
- ➔ **When you add a new device, Reason attempts to route it in a logical way.**
For an introduction to the auto-routing features, see [page 51](#).
- ➔ **A new track will automatically be created in the sequencer, and routed to the new device.**
The track will have the same name as the device. MIDI input will also automatically be set to the new track, allowing you to immediately play the created device via MIDI (see [page 54](#)).
- ➔ **By default, this only applies to instrument devices, not to mixers or effect devices.**
If you hold down [Option] (Mac) or [Alt] (Windows) when you create the device, the opposite is true, i.e. mixers and effect devices get new tracks but instrument devices don't.

- ★ **You can also create devices by browsing patches - see [page 72](#).**

Selecting Devices

Some operations (e.g. cutting, copying and deleting devices) require that you select one or several devices in the rack. This is done according to the following rules:

- **To select a single device, click on it in the rack.**

The selected device is displayed with a colored border (based on the color scheme selected for your operating system).



- **To select several devices, hold down [Shift] and click.**
In other words, [Shift]-clicking a device selects it without de-selecting any other selected devices.
- **To de-select all devices, click in the empty space at the bottom of the rack.**
- **To de-select one of the selected devices, hold down [Shift] and click on it.**
Any other selected devices remain selected.
- **You can also use the up and down arrow keys on the computer keyboard to select the device directly above or below the currently selected one.**
When you use this method, Reason will automatically scroll the rack so that the selected device is fully visible. This is a quick way to “step through” the rack. Narrow devices (e.g. half-width devices such as the effects) are ordered left-to-right, i.e. pressing the down arrow key will step through the devices from left to right before moving on the next device row.
- **If you hold down [Shift] when using the up or down arrow keys, the currently selected device will remain selected.**
This allows you to select a range of devices.

Adjusting a parameter in a device will automatically select it. In other words, you never have to select a device before making settings.

Deleting Devices

To delete one or several devices, select them and use one of the following methods:

- **Hold down [Command] (Mac) or [Ctrl] (Windows) and press [Backspace] or [Delete].**
- **Select “Delete Device” from the Edit menu or the device context menu.**

You can also automatically delete devices when you delete sequencer tracks: If there is a single sequencer track routed to a device, and you delete this track, you will be asked whether you want to delete the device as well (see page 63).

- ! **If you delete a device connected between two other devices, the connection between these is automatically preserved.**
- ! **The Hardware Interface device at the top of the rack cannot be removed.**

Reordering Devices

You can rearrange the devices in the rack by moving them, in the following way:

- If you want to move more than one device at the same time, select the devices.**
- Click in the “handle” area of one of the devices.**
For full width devices, this is the area to the left and right of the panel (between the rack fittings); for smaller devices you can click anywhere outside the actual parameters.
- With the mouse button pressed, drag the device(s) up or down in the rack.**
A thick red vertical line indicates where the device(s) will be positioned. Note that the red line can be to the left of a device (indicating that the moved device will be inserted before the other device) or to the right of a device (indicating that the moved device will be inserted after the other device).

In this example an RV-7 reverb device is moved:

In this case, the red line indicates that the reverb device will be inserted to the left of the phaser.



This is the result. Note that the filter device is moved to the left, to fill out the gap.



In this case, the red line indicates that the reverb device will be inserted to the right of the chorus/flanger.



This is the result. All three devices are moved to the left, to fill out the gap.



4. Release the mouse button.

The device(s) are moved to the new position and the other devices in the rack are adjusted to fill up the “gaps”.

! **Note that if you start to move a device but change your mind, you can abort the operation by pressing [Esc] while keeping the mouse button pressed.**

→ **If you hold down [Shift] when you move a device, Reason will attempt to automatically re-route it.**

See [page 51](#) for more info on auto-routing.

! **Moving devices in the rack does not affect the order of the sequencer tracks and vice versa.**

Duplicating Devices

To make a copy of a device in the rack, hold down [Option] (Mac) or [Ctrl] (Windows) and drag it to a new position.

→ **If you hold down [Shift] when you duplicate the device, Reason will attempt to automatically route it, just as when you move devices.**
See [page 51](#).

Cut, Copy and Paste

Selected devices can be moved or duplicated using the Cut, Copy and Paste Device functions on the Edit menu or device context menu. For example, this allows you to copy one or several devices (such as an instrument device and all its insert effects) from one Reason Song to another. The following rules apply:

→ **Cut and Copy affects all selected devices, and work according to the standard procedures.**

That is, Cut moves the devices to the clipboard (removing them from the rack) while Copy creates copies of the devices and puts these on the clipboard, without affecting the rack.

→ **When you Paste devices, these are inserted into the rack below the currently selected device.**

If no device is selected, the pasted devices will appear at the bottom of the rack.

→ **If you Copy and Paste several devices, the connections between these are preserved.**

→ **If you hold down [Shift] when you Paste a device, Reason will attempt to automatically route it.**

The rules are the same as when moving or duplicating devices by dragging.
See [page 51](#).

A Quick Note on Routing

! **This section only describes the basics in routing. For detailed descriptions of routing procedures and possibilities, see the Operation Manual pdf.**

Reason allows for extremely flexible routing of audio and control signals between the devices in the rack. Basically, routing can be done automatically or manually:

Automatic Routing

Auto-routing means that Reason makes all basic audio connections for a device, in one go. As mentioned on the previous pages, auto-routing is automatically performed when you create a new device, and when you move, duplicate or paste devices with [Shift] pressed.

✪ **If applicable, auto-routing is automatically done in stereo.**

Creating Mixers

→ **The first created mixer device will be routed to the Stereo inputs on the Hardware Device.**

See the Operation Manual pdf for details.

Routing a device to the Mixer

→ **When you create an instrument device (synth, sampler, drum machine or loop player) it is automatically routed to the first available mixer channel.**

This makes it immediately available for use.

Routing a Send Effect to the Mixer

→ **When you have a mixer selected and create an effect device, it will be connected as a send effect (to the first free Aux Send/Return).**

Examples of effects that lend themselves well for use as send effects are reverb, delay and chorus.

Routing an Effect directly to a device (Insert)

→ **When you have an instrument device selected and create an effect, that effect will be connected as an insert effect. That is, the signal from the device will pass through that effect and to the mixer.**

Examples of effects that work well as inserts are distortion, compression and phaser.

Routing an Insert Effect between the Hardware Interface and another device

→ **If you select the Hardware Interface and then create an effect, the effect will be connected as an insert effect between the Hardware Interface and whatever device was connected to the Hardware Interface inputs (normally the outputs of a Mixer device).**

This is the intended way to connect the MClass Mastering Suite Combi, at the very end of the signal chain.

Auto-routing Devices after they have been Created

Here follows some additional rules about auto-routing devices that are already in the rack:

→ **To reroute a device already in the rack, you can select it and use Disconnect Device and Auto-route Device, both on the Edit menu.**

→ **If you delete a device connected between two devices, the connection between the two remaining devices is automatically preserved.**

A typical example would be if you have an effect device, connected as an insert effect between a synth and a mixer. If you delete the effect, the synth will be routed directly to the mixer.

→ **When you move a device, connections are not affected.**

If you instead would like the program to re-route the device according to its new location in the rack, hold down [Shift] when you move it.

→ **When you duplicate devices (by dragging) or use copy and paste, the devices are not auto-routed at all.**

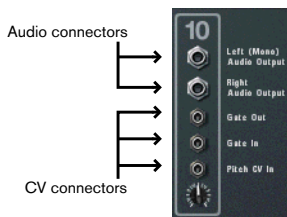
If you would like them to be automatically routed, hold down [Shift] when you perform the operation.

Manual Routing

To connect devices manually, you need to flip the rack around to see the back. This is done by pressing [Tab] or selecting "Toggle Rack Front/Rear" from the Options menu.



On the back of each device you will find connectors of two different types: audio and CV (Control Voltage, used for controlling parameters - see the Operation Manual pdf). Audio inputs and outputs are shown as large "quarter inch" jacks, while CV input and output jacks are smaller. For now, we stick to audio connections.



! When the back is shown, you can still navigate in the rack by scrolling, by using the computer keyboard, etc. (see [page 48](#)).

There are two ways to route audio from one device to another: by connecting "virtual patch cables" between inputs and outputs, and by selecting connections from a pop-up menu:

Using Cables

! For the cables to be visible, the option "Show Cables" must be activated on the Options menu. See below.

1. Click on the desired input or output jack on one of the devices, and drag the pointer away from the jack (with the mouse button pressed).

A loose cable appears.



2. Drag the cable to the jack on the other device.

When you move the cable end over a jack of the correct type (audio/CV, input/output) it will be highlighted to show that a connection is possible.

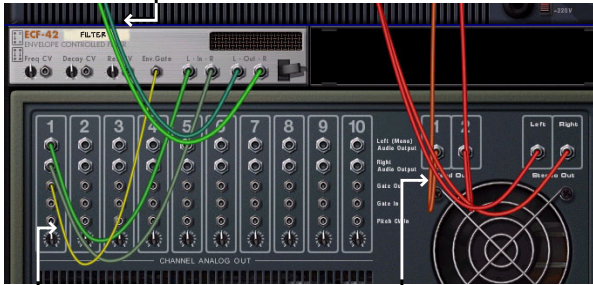
3. Release the mouse button.

The cable is connected. If both input and output are in stereo and you connect the left channels, a cable for the right channel is automatically added.

! Dragging a cable to make a connection can be aborted by pressing [Esc] while keeping the mouse button pressed.

✦ To give a better overview of the connections, the cables have different colors. Connections to or from effect devices are different shades of green, other audio connections are different shades of red and CV connections are different shades of yellow.

These cables are green, indicating effect device connections.



This cable is yellow, indicating a CV connection.

These cables are red, indicating connections between instruments and mixer devices.

- You can change an existing connection in the same way, by clicking on one end of the cable and dragging it to another connector.

Using pop-up menus

1. **Click (or right-click) on a connector.**
A pop-up menu appears, listing all devices in the rack.
2. **Move the pointer to the desired device (the device to which you want to create a connection).**
A submenu appears, listing all suitable input/output connections. For example, if you clicked on an audio output on a device, the hierarchical submenus will list all audio inputs in all other devices.



- If a device is greyed out on the pop-up menu, there are no connections of the suitable kind.
3. **Select the desired connector from the submenu.**
The connection is created.

Disconnecting Devices

Again, there are two ways to disconnect devices:

- Click on one end of the cable, drag it away from the jack and drop it anywhere away from a jack.

or

- Click on one of the connectors and select “Disconnect” from the context menu that appears.



Hiding and Showing Cables

You can choose whether you want the patch cables to be visible or not, by activating or deactivating the Show Cables item on the Options menu. When the cables are hidden, connectors in use are indicated by a colored dot:



Checking Connections

You can check to which device a jack is connected. This is especially useful if the patch cables are hidden, but it is also practical if you have a lot of cables or if the two devices are far from each other in the rack:

- Position the pointer over a connector and wait a moment.
A tool tip appears, showing the device and connector in the other end.



Routing MIDI to a Device

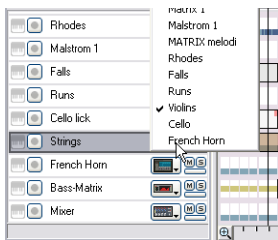
There are several ways to send MIDI from a control surface to a Reason device, as described in the Operation Manual. However, in this book we stick to the most common method: to route MIDI via the sequencer.

With this method, incoming MIDI (e.g. from your master keyboard) is sent to one of the tracks in Reason's sequencer. The sequencer will then pass it on to a device in the rack (the device to which the track is routed). This way, you can select different devices for MIDI playback by directing the incoming MIDI to different tracks in the sequencer.

Proceed as follows:

1. In the sequencer, locate the track that is connected to the device you want to play.

If you are uncertain, you can pull down the Out pop-up menu for each track and check to which device they are routed.



2. Click in the In column for the track.

A keyboard symbol is displayed, indicating that this track will receive MIDI from the Master Keyboard.



3. Play the master keyboard to hear the sound of the device.

- ★ On the panel of some instrument devices you will find a Note On indicator. This blinks to indicate incoming MIDI notes.
- ★ If your master keyboard have knobs or faders, try moving these. For most keyboard models, these are automatically mapped to the most useful parameters on the Reason devices, allowing you to tweak the sound of instrument devices while you're playing. There are also many other ways to use control surfaces to control parameters and functions in Reason - see the Operation Manual.

Naming Devices

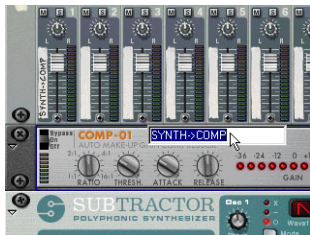
Each device has a "tape strip" showing the name of the device. When you create a new device it is automatically named according to the device type, with an index number (so that the first Subtractor synthesizer you create is called "Synth 1", the next "Synth 2" and so on). If you like, you can rename a device by clicking on its tape strip and typing a new name (up to 16 characters).



For devices connected to a mixer, the device names are automatically reflected on the vertical tape strips for the corresponding mixer channels (next to the mixer channel faders). Similarly, tape strips below the Return knobs show the names of the effect devices connected to the corresponding Return inputs.



Note that the mixer channel tape strips show the name of the device directly connected to the mixer! This means that if you have an instrument device routed through an insert effect, the mixer channel tape strip will show the name of the insert effect device (as this is the device directly connected to the mixer channel). In this case, you may want to rename the insert effect device, to indicate the connected instrument.



The relation between device names and track names

When you create an instrument device, it automatically gets a track in the sequencer, with the same default name. Renaming a device will also rename the corresponding sequencer track, and vice versa, if the following conditions are met:

- The device and its track has the same name.
- There is only one track connected to the device.

Often, having the same name for the device and the track is the most practical arrangement, since it makes it easier to keep track of which track plays what. Should you want to rename the track or device independently, you need to disconnect the track from the device, rename and connect it again. How to connect a track to a device is described on page 62.

Folding and Unfolding

If you don't need to make settings for a device, you can fold it to make the rack more manageable and avoid having to scroll a lot. This is done by clicking the arrow to the left of the device.



To unfold the device, click the arrow again.

- **In rack rows with devices of smaller width, the fold/unfold arrow is placed to the left of the leftmost device and affects all devices in the row.**
- **If you hold down [Option] (Mac) or [Alt] (Windows) and click the arrow of an unfolded device, all devices in the rack will be folded.** Conversely, [Option]/[Alt]-clicking the arrow of a folded device will unfold all devices.
- **For folded devices, no parameters are shown and you cannot make routing adjustments on the backside of the rack as long as the devices are folded.** However, if you want to make a connection to a folded device, you can drag a cable to it and hold it there for a moment. This will cause the folded device to automatically unfold and let you make the connection.
- **Folded devices can be renamed, moved, duplicated and deleted just like unfolded devices.**
- **For devices that use patches, you can select patches in folded mode as well.**
- **Playback is not affected by folding.**



REASON

7

→ The Sequencer - Basics

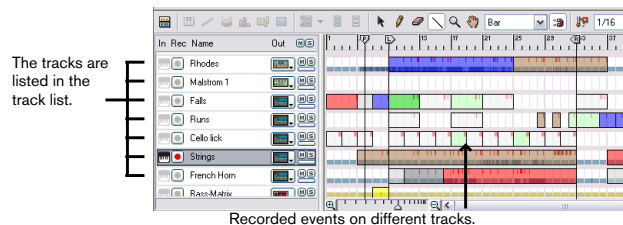
About the Sequencer

The sequencer is your main composition tool in Reason. This is where you record notes, controllers, device parameter automation and pattern changes.

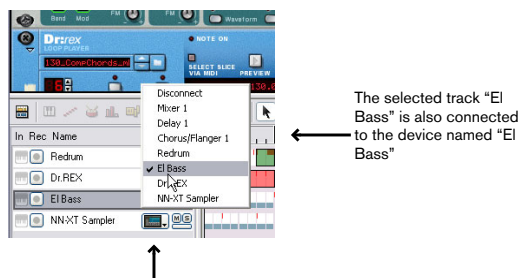
In this chapter you will find descriptions of all basic procedures; recording, playing back and handling sequencer tracks. For descriptions of editing, quantizing, using groups, etc., please refer to the Operation Manual pdf.

The relation between the Sequencer and the Rack

In the sequencer, data is recorded and played back on tracks (much like tracks on a multi-track tape recorder).



A track can be connected to an instrument device in the rack, so that data on the track is sent to the device on playback. Each track can only be connected to one device at a time, but it is possible to have several tracks that all play the same device. Note also that when renaming a sequencer track (see [page 61](#)), the device to which it is connected automatically gets the same name - and vice versa.



The icons in this column indicate to which device type each track is connected.

It is possible to have tracks that are not connected to any device. Notes on a disconnected track will not be heard on playback (since there is no device to play them). Similarly, it is possible to have instrument devices without sequencer tracks.

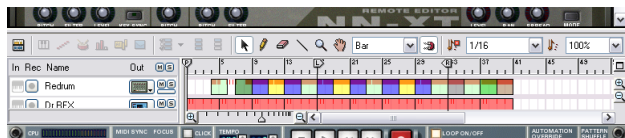
The Main Sequencer vs. Pattern Sequencers

As described in the chapter "Using Pattern Devices", the main sequencer interacts with the built-in sequencers in pattern devices in the following ways:

- **The sequencer and all devices use the tempo, as set on the transport panel.**
- **If you start playback for the main sequencer (on the transport panel), all pattern devices will automatically start as well.** That is, provided the pattern sequencer isn't disabled for a device (see [page 78](#)).
- **Pattern changes will always happen at the start of a bar in the main sequencer (regardless of the pattern lengths).** This only applies to pattern changes made "live" on the device panel. Pattern changes played back from the sequencer will happen at their exact position. See the Operation Manual pdf.

For details, see [page 78](#).

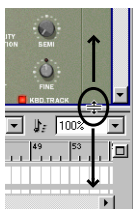
Sequencer window handling



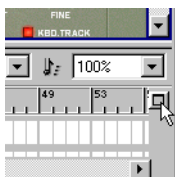
The sequencer area below the rack.

The basic window techniques in Reason have been described on page 40. Here is a quick run-through:

- You can adjust the size of the sequencer area by dragging the divider between the sequencer and the rack.



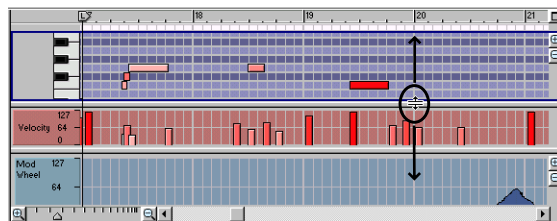
- Clicking the maximize button in the upper right corner will make the sequencer area fill the whole document window.



The sequencer maximize button.

- When editing the contents of a sequencer track, the right part of the sequencer area can be divided into different lanes.

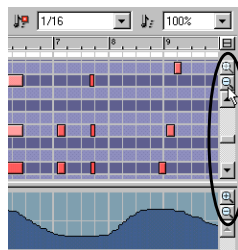
Typically, you would view the note information in one lane, controller curve in another lane, etc. You can adjust the size of the lanes by dragging the dividers between them.



Here, the key lane, velocity lane and a controller lane are shown.

- You can scroll and change magnification in a number of ways, including standard scroll bars and horizontal and vertical zoom controls, as well as with the Magnifying Glass tool, the Hand tool and a mouse with a scroll wheel (see page 41).

Where applicable, different areas in the sequencer have separate scrollbars and zoom controls.



- You can also adjust the horizontal magnification in the sequencer area by holding down [Command] (Mac) or [Ctrl] (Windows) and pressing [+] or [-] (on the standard part of the computer keyboard, not on the numeric keypad).

[Command]/[Ctrl]-[+] zooms in while [Command]/[Ctrl]-[-] zooms out.

Working with the sequencer in a separate window

The sequencer window can be detached from the rack and used in a separate window. This could be useful for instance if you are working with a large number of tracks or if you are viewing many sequencer lanes at once. Detaching the sequencer will then make it possible to view all tracks or lanes at once without having to resize the sequencer or scroll the view up and down to focus on a certain track or lane

The separate sequencer window can be positioned and resized freely both horizontally and vertically using the basic windows techniques described on page 40.

- ➔ **To detach the sequencer from the rack, either click the corresponding button in the top right corner of the rack, or pull down the Windows menu and select “Detach Sequencer Window”.**

Click this button...

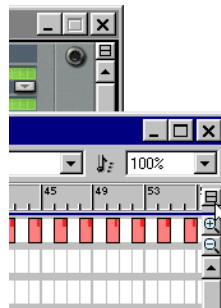


...to open the sequencer in a separate window.



- ➔ **Similarly, to reattach the sequencer window to the rack, either select “Attach Sequencer Window” from the Windows menu or click the button.**

Note that the button for detaching the sequencer window is *only* available in the rack. The button for reattaching the sequencer though, is available both in the rack and in the sequencer.



The Attach Sequencer button on the sequencer and, in the background, on the rack.

- ! **Another way of reattaching the sequencer window is by closing it. Note also that the rack is still the “main” window for the song, which means that closing the song will close the sequencer window as well.**

About the Transport

You'll notice that when detaching the sequencer from the rack, there will be two instances of the transport on the screen - one in the rack and one in the sequencer window. This is for convenience since it allows you to control playback and recording regardless of which window is the active one.

Should you wish however, you can fold one of the transports in the same manner as with any other device in Reason. Folding and unfolding devices is described on page 55.

- ✱ **To make the rack or the sequencer the active window when they are separated, you can use the key commands [Command]-[1] (Mac)/[Ctrl]-[1] (Windows) and [Command]-[2] (Mac)/[Ctrl]-[2] (Windows) respectively.**

A note about using Reason with two monitors

If you have a computer system with two monitors, you can do the following:

- **Use one monitor for viewing and managing the rack only.**
- **Detach the sequencer as described above, and dedicate one of your monitors to the sequencer only.**

To be able to use two monitors, you must have an operating system and a graphics card that supports it.

Please refer to the documentation for your operating system and possibly the graphics card for instructions on how to set up your system for using two monitors.

Managing Tracks

Creating Tracks

As described on page 48, tracks are automatically created when you create instrument devices in the rack. Still, you may need to create additional tracks (e.g. for recording effect device automation - see the Operation Manual pdf):

- **To create a new sequencer track, pull down the Create menu and select Sequencer Track (or select Create Sequencer Track from the context menu in the sequencer).**

The new track will appear below the currently selected track in the track list. Initially, it will not be connected to any device (see below).

- **You can also create a new sequencer track specifically for a device by using the Create Sequencer Track for Device item on the device's context menu.**

This works the same as when creating a new device, i.e. the new track is connected to the device and has the same name.

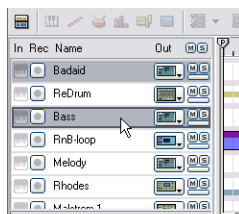
Naming Tracks

You can rename a track by double clicking on its name in the track list and typing in a new name. Note:

- **If the track is connected to a device, the device will be renamed too.** Typically, after creating a new device, you can rename its sequencer track, automatically changing the name of the device. The reverse is also true. That is, renaming a device will also change the name of its sequencer track.

Selecting Tracks

To be able to manipulate a track or edit its contents, you need to select it. You select a track by clicking on its name in the track list.



Selected tracks are highlighted in the list.

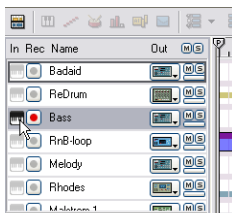
Selecting a track will automatically scroll the rack to bring the corresponding device into view.

- You can also select the next or previous track in the list by using the up and down arrow keys on the computer keyboard.
 - It is possible to select several tracks, by pressing [Shift] and clicking.
- This allows you to e.g. move or delete several tracks in one go. However, you can only edit the contents of one track at a time (the top selected track will be edited - see the Operation Manual pdf).
- ! **Don't confuse selecting a track with routing MIDI to a track (see below).**

Routing MIDI to a Track

The normal way of routing MIDI to a device in the rack is to go via the sequencer. When MIDI is routed to a track in the sequencer, the notes and controller data are automatically echoed to the corresponding device (the device to which the track is connected - see below).

- To route incoming MIDI to a track, click in the In column (the keyboard icon to the left of the track name).
- The keyboard symbol lights up, indicating that the track will receive MIDI (provided that you have selected a MIDI Input port for the sequencer in the Preferences-Control Surfaces dialog, as described on page 15). Only one track at a time can have MIDI input. The track with MIDI input is automatically record enabled, indicated by the Record symbol lighting up in the Rec column.



- You can record enable several tracks for automation recording - this is described briefly on [page 66](#).

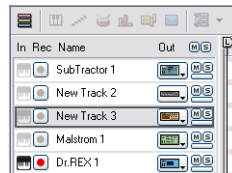
Disconnecting MIDI In

You can turn off incoming MIDI altogether by clicking on the MIDI keyboard symbol so that it is grayed out.

Connecting a Track to a Device

To the right of the track name you will find the Out column. During playback (and when you play Reason via MIDI, this setting determines to which device each track will send MIDI data.

- To connect a track to a device in the rack, pull down the pop-up menu in the Out column and select one of the devices.



The symbol in the Out column indicates to which device type each track is connected.

- When you create an instrument device, a track is automatically created and connected to the new device.

Moving Tracks

To move a track to another position in the list, click on the track name and drag it up or down. To move several tracks at once, select them, click on one of them and drag.

- ! The order of the tracks in the sequencer is independent of the device order in the rack.

Duplicating Tracks

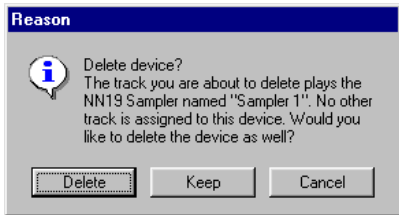
To make copies of tracks, complete with all recorded data, use any of the following methods:

- Hold down [Option] (Mac) or [Ctrl] (Windows) and drag the track to a new position in the track list.
- Bring up the context menu for the track and select Duplicate Track. To bring up the context menu, [Ctrl]-click (Mac) or right-click (Windows) on the track in the track list.
- ! Note that a duplicated track will be routed to the same device as the original. You may want to mute one of the tracks or connect it to another device to avoid double notes, etc.

Deleting Tracks

To delete one or several tracks, select them and press [Backspace] or [Delete].

→ **If the track to be deleted (and this track only) is connected to a device, the following alert message will appear:**



Select one of the following options:

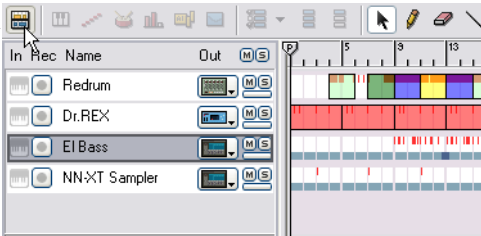
Option	Description
Delete	Delete both the track and the connected device.
Keep	Delete the track but keep the device in the rack.
Cancel	Do not delete the track or the device.

About the two Views

While the left part of the sequencer area always contains the track list, there are two different view modes for the right part: Arrange View and Edit View. You switch between the two views by clicking the button in the top left corner of the sequencer area. The button changes appearance to illustrate which view is selected.

Arrange View

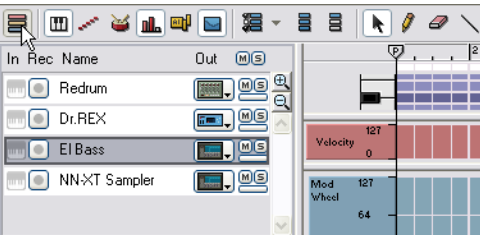
The Arrange view selected.



In the Arrange View, all tracks are shown, with colored bars indicating recorded events. Use this mode to get an overview of your arrangement, and when you want to perform large scale editing such as rearranging whole sections of your song, etc.

Edit View

The Edit view selected.



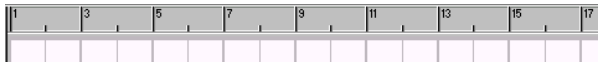
In the Edit View, you get a close-up look at the recorded events on a single track at a time. When the Edit View is selected, the right part of the sequencer area can be divided into several horizontal lanes, showing different types of events (notes, REX slices, drum sounds, controllers, etc.). This is the view mode of choice for fine editing of your recording, for when you want to draw notes, controllers and other events manually.

! **For details about editing, see the Operation Manual pdf.**

About the Ruler, Song Position and Locators

Regardless of which view mode is selected, you will find a horizontal ruler at the top of the sequencer display. This indicates the meter positions, that is, the positions in bars and beats.

→ **The numbering and detail of the ruler depends on the horizontal magnification.**



At a medium zoom setting, odd bars will be shown with a bar number and even bars will be indicated by a mark.



If you have zoomed in fully, each bar will be numbered, and every 1/32 note position will be indicated by a mark.

In the ruler, you will also find four different position markers, each with a separate “flag”:

This is the song position, indicating at which position playback happens.

This is the End marker. This informs Reason about where your song ends (see the note below).



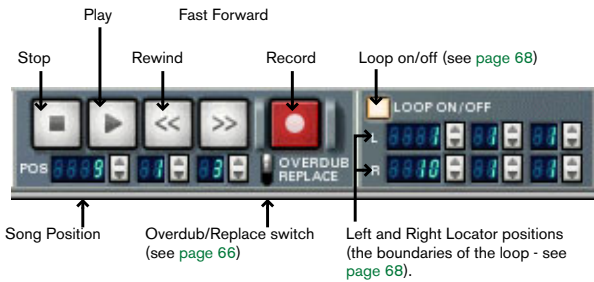
This is the left locator. When using the Loop mode (see page 68), the left locator governs the start position of the loop.

This is the right locator. When using the Loop mode, this governs the end position of the loop.

★ **The End (E) marker indicates the end of the song. The program uses this information when exporting the song as an audio file and when you scroll horizontally in the sequencer area. Playback or recording will not stop at the End marker.**

Transport Controls - Overview

The transport panel is located at the bottom of each song document window. This is where you activate playback, recording, fast forward/rewind, etc. Here is a brief overview of the controls, to help you find your way in the recording and playback procedures on the following pages.



Transport Key Commands

There are fixed computer keyboard combinations for the most important transport functions:

Function	Key command
Stop	[0] on the numeric keypad or [Return]
Play	[Enter] on the numeric keypad
Toggle Stop/Play	Space bar
Go to previous bar/Rewind	[7] on the numeric keypad
Go to next bar/Fast Forward	[8] on the numeric keypad
Record	[*] on the numeric keypad or hold [Command] (Mac) or [Ctrl] (Windows) and press [Return]
Go to Left Locator (Loop Start)	[1] on the numeric keypad
Go to Right Locator (Loop End)	[2] on the numeric keypad

Setting Up for Recording

Before you can start recording, you need to make some settings:

Tempo and Time Signature

The tempo and time signature settings are located on the transport panel.

- **You can specify any tempo between 1 and 999.999 bpm (beats per minute).**

The tempo field to the right allows you to fine tune the tempo, in steps of 1/1000 bpm.



You can also adjust the tempo (in bpm steps) by using the [+] and [-] keys on the numeric keypad.

- **You set the time signature by specifying a numerator (left value field) and a denominator (right value field).**

The numerator is the number of beats per bar, and the denominator governs the length of a beat.

3/4 time selected.



Click

When you record, it is often necessary to have some sort of rhythmic guide to help you keep time. The easiest way is to use the built-in metronome click:



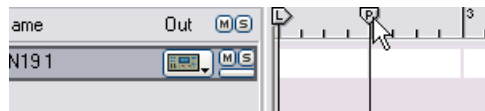
When this is activated, you will hear a click on each beat, with an accent on the downbeat of each bar. The click is played back during recording and playback. You can adjust the volume of the click by using the Level knob.

- ★ **Sometimes it might be easier to use a drum machine pattern as a rhythmic guide.**

Recording

To record MIDI from an external MIDI instrument, proceed as follows:

- 1. Make sure MIDI is routed to the desired track, see page 62.**
The track with MIDI input is always automatically record enabled.
- 2. Move the song position to where you want the recording to start.**
Recording always starts at the song position.



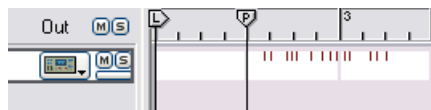
To move the song position, drag the P marker or click directly in the ruler.

- ★ **You may want to start a few bars early to get time to start playing.**

- 3. Click the record button or press [R] on the numeric keypad.**
The record button lights up to indicate "Record Standby" mode.



- 4. Click the play button or press [Enter] on the numeric keypad.**
Recording starts.
- 5. When you are done, click the stop button or press [0] on the numeric keypad.**



Recorded notes are indicated as red "bars" in the Arrange window.

At this point, you may want to move the song position to the beginning of the recording (by rewinding or by moving the song position marker in the ruler), and click the play button to listen to what you recorded. You can undo the recording if you like.

- **It is also possible to activate recording during playback ("punch in"), by starting playback and then clicking the record button.**
Similarly, you can deactivate recording without stopping playback ("punch out").

Recording more tracks

Once you have recorded something, you can continue recording on other tracks, while hearing the first recording play back. Just remember to route MIDI to the desired recording track.

→ You can change the MIDI routing during recording if you like.

This is especially useful when recording in loop mode: record the first track, then click in the In column for the next track you want to record, and so on. Everything you record will be played back on the next loop lap. For more info about the loop mode, see [page 68](#).

Recording more on the same track - Overdub/Replace

If you like, you can continue recording over the same area on the same track. This can be useful for adding elements to a loop, for recording automation of multiple controls or for replacing a faulty part of an otherwise good take.

Whether the previous recording is kept or removed depends on the Overdub/Replace setting.



→ In Overdub mode, the new recording is added to whatever was on the Track before.

When you play back, you will hear both recordings. This is the mode to use when you want to add elements to an existing recording (e.g. add controller data to recorded notes).

→ In Replace mode, the new recording replaces any previously recorded notes.

Only the notes in the actual recording area are replaced.

! It's probably best to use Overdub mode as your default mode, to avoid removing material by mistake.

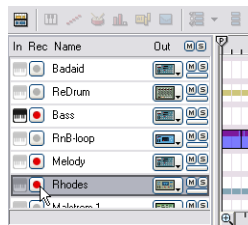
! The Overdub/Replace switch affects notes only - not recorded controllers! See the Operation Manual pdf for details.

Replacing a section of a previous recording

If you have made a largely successful recording, in which only a section needs to be redone, you can use Replace mode for this:

1. **Select Replace mode.**
2. **Start playback at a position before the faulty section.**
3. **At the start of the section, activate recording.**
4. **Re-record the section.**
5. **At the end of the faulty section, deactivate recording or stop.**

Record enabling several tracks



Although only one track at a time can have MIDI input, it is possible to record enable any number of tracks, by clicking in the Rec column for tracks.

The purpose of this is to enable automation recording for more than one track at a time. This allows you to send controller messages from a control surface (or to tweak parameters directly on the front panel) to record automation for devices connected to these tracks even though they do not have MIDI input.

Automation recording is described in the Operation Manual pdf.

Playback and Positioning

! If you are using ReWire, transport functions can be handled by either application. See the Operation Manual pdf.

Play and Stop

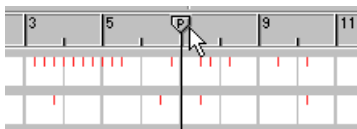
- To play back from the current song position, click the play button or press [Enter] on the numeric keypad.
- To stop playback, click the stop button or press [0] on the numeric keypad.

If you click the stop button when the song is already stopped, the song position is moved according to the following rules:

- If the song position is to the right of the left locator, it is moved to the left locator.
- If the song position is at the left locator or to the left of it, it is moved to the start of the song.
- If the song position is at the start of the song, nothing happens.

This means you can always click twice on the stop button in stop mode, to return to the beginning of the song.

Positioning



The song position is indicated by the vertical line with the "P" marker in the ruler. There are several ways to move the song position:

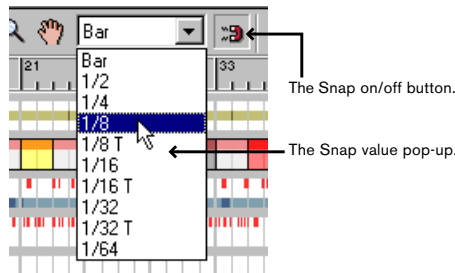
- **Use the rewind and fast forward controls on the transport panel.**
This moves the song position in steps of one bar (from its current position). That is, if you just click once on the rewind/fast forward button, the song position will be moved exactly one bar back or forward. To move the song position several bars, click and hold the mouse button.
- **Use the transport key commands on the numeric keypad.**
See the table on page 64.
- **Click and drag the P marker in the ruler, or click directly in the ruler at the desired song position.**
The resulting song position takes the Snap value into account, as described below.

- **Adjust the song position numerically in the value display below the transport buttons.**

The song position is shown as three digits: bars, beats and sixteenth notes.



About Snap to Grid



The Snap to Grid function (from now on called "Snap") restricts movement to specific positions. This is especially useful when you are editing in the sequencer (moving material, creating events, etc), but it will also affect the result of moving the song position in the ruler.

To set up and activate Snap, proceed as follows:

1. **Pull down the Snap pop-up menu and select a value.**

If you select "Bar", you will only be able to move the song position to the beginning of bars. The other options restrict movement to the corresponding note values.

2. **Activate Snap by clicking the button next to the pop-up menu.**



In this example, Snap is activated and set to quarter notes. This means you can move the song position to exact quarter note positions only.

Using the Loop

In loop mode, the sequencer will repeat a section over and over again, during playback or recording. You specify the section to be looped by setting the left and right locator:

- ➔ **Set the left locator (the start of the loop) by dragging the “L” marker in the ruler.**

Or, you can hold down [Option] (Mac) or [Ctrl] (Windows) and click in the ruler.

- ➔ **Set the right locator (the end of the loop) by dragging the “R” marker in the ruler.**

Or, you can hold down [Command] (Mac) or [Alt] (Windows) and click in the ruler.

- ! **Note that Snap applies when moving the locators in the ruler, just as with the song position.**

Both locator positions can also be adjusted numerically on the transport panel.



- ➔ **To activate the loop, click the Loop On/Off button so that it lights up, or use the corresponding key command.**

On a Mac this is [L], under Windows it's [+], both on the numeric keypad.

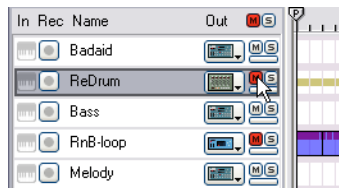
When you play back in loop mode, and the song position reaches the right locator, it will immediately jump back to the left locator. This way, the area between the locators will be repeated continuously.

- ★ **Playing back in loop mode is useful to try out mixes and arrangements, rehearse takes, etc. Recording in loop mode can be useful for adding elements to a groove, one layer at a time. Just remember to select Overdub mode if you are recording several layers on the same track!**

Mute and Solo

To mute a track means to silence it, so that no data is sent from the track during playback. This can be very useful when you are trying out different versions of an arrangement, for bringing elements in and out of the mix during playback, etc. To solo a track means all other tracks are muted.

- ➔ **To mute (silence) a track, click the corresponding Mute (M) button.** The notes and events on the muted track will not be heard on playback.



A red M button indicates a muted track.

To unmute the track, click the M button again. Several tracks can be muted at the same time, in which case you can unmute them all by clicking the “master” M button in the M column heading.

- ➔ **To solo a track, click the corresponding Solo (S) button.** This mutes all other (unsoloed) tracks. Soloed tracks have green S buttons. To turn solo off, click the green Solo button again.



Here, the track Redrum 1 is soloed (indicated by a green S button).

Several tracks can be soloed at the same time, in which case you can turn off Solo for all of them by clicking the “master” S button in the S column heading.

What else can I do in the sequencer?

This chapter has only touched briefly on the capabilities of the sequencer. In the Operation Manual pdf you will find detailed descriptions of the following sequencer functions and procedures:

- Recording pattern changes and control automation.
- Rearranging recorded material in the Arrange View.
- Editing recorded notes, controllers and pattern changes.
- Quantizing and using grooves.
- Manual creation of notes and controllers.
- Using groups.
- Importing and exporting MIDI files.



REASON

8

→ Introduction to the Combinator

What is the Combinator device?



The Combinator is special device that allows you to save and recall any combination of Reason devices (instruments, effects, mixers etc.) and their internal connections. A saved Combinator setup can be loaded as a patch, called a “Combi”. The Combinator device itself acts as a container for the devices in a Combi.

The basic idea behind the Combinator device is simple, but very powerful. Being able to save multiple devices as a Combi enables you to instantly recall any type of setup, however complex, as simply as loading a patch!

Some typical applications of the Combinator:

→ Create split or layered multi-instruments.

Add any number of instrument devices (Subtractors, NN-XT's etc.) and play them as a single layered instrument. Instrument devices in a Combi can also be assigned to specific keyboard/velocity zones.

→ Save instrument/effect combinations.

Save an instrument together with your favorite effect(s).

→ Create multi-effect devices.

You can create and save complex effect chains as Combis.

About the Combi patch format

The Combinator saves files in the Combi (.cmb) patch format. When you load a Combi patch, all devices included in the Combi, their corresponding parameter settings and internal audio and CV connections are instantly recalled.

The Factory Soundbank includes many preset Combi patches, divided into various categories. There are two basic types of Combis; Instrument and Effect Combis.

- Effect Combis typically contain a “chain” of effect processors and are meant to be connected to devices outside the Combi as an insert or send effect.
- Instrument Combis contain one or several instrument devices, and are meant to be “played” like standard instrument devices. Instrument Combis can also contain effect devices.

How to create Combinator devices

There are several ways you can create a Combinator device:

→ By selecting “Combinator” from the Create menu.

This will create an empty Combinator device.

→ By [Shift]-selecting several devices in the rack and then selecting “Combine” from the Edit menu.

This will create a Combi containing the selected devices. The devices are removed from their original locations in the rack, into the Combinator holder.

→ By selecting the “Create device by browsing patches” menu item from the Create menu.

This allows you to browse for Combi patches - if you select a “.cmb” patch a Combinator device will be created, containing the devices saved with the Combi.

About external and internal audio routing



At the back of a Combinator you can find the following audio connectors:

→ Combi L/R Outputs

This is the output of the Combinator, which is internally connected to the “From Devices” connectors. This output connects with devices “outside” the Combi, normally a mixer device.

→ From Devices L/R inputs

This is where outputs from devices in a Combi are connected. A mono or stereo output can be connected.

→ Combi L/R Inputs

This is the input to the Combinator (used for effect Combi only). Internally connected to the “To Devices” connectors.

→ To Devices L/R outputs

These connect to an input on a device in the effect Combi.

→ Normally, all audio connections to and from devices in a Combi should pass via the To/From Device connectors.

While it is entirely possible to directly connect the output of a device in a Combi to the input of a device outside the Combi, this is called an “External Routing” connection and should be avoided if the Combi is to be completely “self-contained”.

→ If any device in a Combi uses external routing, this connection will not be saved with the patch.

As a warning, an “External Routing” indicator will light up if such a connection is made.

For example, if a Combi contains three Subtractors (but no mixer), there would be three mono outputs coming from devices in the Combi (the Subtractors). As there are only two “From Devices” inputs, there is a problem. The solution is to include a mixer device in the Combi and to connect the Subtractors to this. If the output of the mixer is connected to the “From Devices” input, all three outputs from the Subtractors (and more device outputs should you so wish) can be passed via the Combinator interface, without external routing.

! **Please refer to the Operation Manual chapter “The Combinator” for a complete description of the available features.**

Creating a layered instrument Combi patch - a tutorial

In this step-by-step tutorial we will show you how to create a simple Combi patch, starting with an empty Combinator device. The objective is to create a layered instrument Combi that includes both instrument and effect devices:

1. **To make things easy to follow, start with an empty rack.**
2. **Select a mixer device from the Create menu - either a 14:2 or a Line mixer - it doesn't matter.**
3. **Create a Combinator by selecting “Combinator” from the Create menu.**
An empty Combinator device is added to the rack, and a Combinator sequencer track is created.



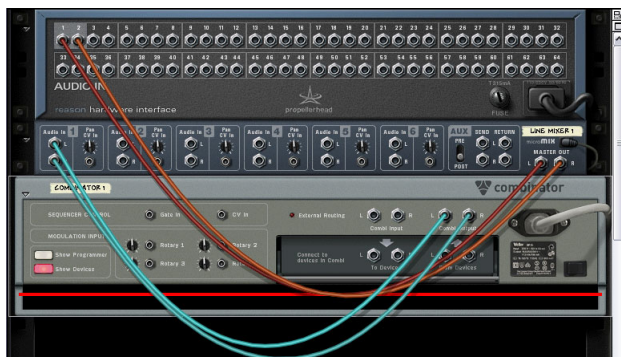
→ The front panel consists of a narrow top panel (with a patch name display and standard patch browse/save buttons), and below is the Controller panel.

This panel contains (amongst other things) virtual knobs and buttons that can be assigned to any device parameter or function contained in the Combi (see [page 75](#)).

→ The empty space at the bottom is the Combinator “rack”, where devices added to the Combi will be located.

It is also used for adding devices to a Combi via drag and drop.

If you flip the rack around, the Combi outputs have been auto-routed to inputs on the mixer device, but as the Combi is currently empty there are no connections to the “From Devices” inputs yet.



Let's continue by adding a Line Mixer to the Combi.

4. **Click in the empty space at the bottom of the Combinator so that a red line appears.**

This is called the insertion line. When this line is shown, the Combinator will be the target destination for new created devices.



The insertion line.

5. **Select a Line Mixer 6:2 device from the Create menu.**

The mixer is added to the Combi. The master output of the Line mixer is auto-routed to the “From Devices” connectors.



Now we have a good starting point for adding instrument devices - the added instruments will be auto-routed to the Line mixer device in the Combi.

For sake of example, let's make a simple layered instrument Combi using two instrument devices; a NN-Xt and a Malström.

6. **Select the Line mixer by clicking it in the Combinator rack, or click in the empty space at the bottom of the Combinator so that the insertion line appears.**

Either method will ensure that the next device created will be added to the Combi.

7. Select a NN-XT from the Create menu.

The NN-XT is added to the Combi, with its L/R Master outputs auto-routed to the Line mixer. As you can see, the area below the Combinator Controller panel encloses the devices in the Combi, like a “rack within the rack”. Also note that when an instrument device is added to a Combi in this way, no corresponding sequencer track is created for the device as the incoming MIDI is routed via the Combinator track (it is, however, possible to manually create independent tracks for devices in a Combi).



8. Select a patch for the NN-XT, for example a Piano.

9. Repeat step 6 and select a Malström device from the Create menu.

10. Select a patch for the Malström, for example a pad sound.

So now we have a Combi with three devices: a Line mixer, a NN-XT and a Malström.

11. With MIDI directed to the Combinator track, play a few notes.

As you can hear the two instrument devices are now layered!

→ Try experimenting with different patches for the devices.

Many interesting textures and sounds can be created using layered instruments. Naturally, you can layer more devices, as many as you like, using the same basic technique.

Next, let's add an effect device to the Combi. Given the setup, this could be done in two ways:

- If you select one of the instrument devices and then create an effect, it will be added as an insert effect to that instrument device.
- If you select the mixer and then create an effect, it will be added as a mixer send effect.

12. In this case, let's add a RV7000 reverb device as a send effect - select the mixer and choose the RV7000 effect from the Create menu.

The reverb is auto-routed as a send effect to the mixer. You can now add a touch of reverb to the devices by tweaking the Aux send for the corresponding mixer channels.

13. Finally, save the setup as a Combi patch.

The next time you open this patch, the setup will open exactly as saved!

About the Programmer

The Combinator also features a Programmer with key and velocity zone mapping and modulation routing capabilities. This section briefly describes the various elements of the Programmer:

→ Click the “Show Programmer” button on the Controller panel to bring up the Programmer panel.



The Programmer panel appears below the Controller panel. To the left you can find a Key Mapping area with a list showing each device currently in the Combi.

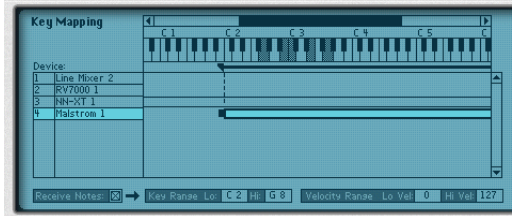
→ Clicking on an instrument device in the list selects it.

→ Instrument devices (which receive MIDI Note data) are automatically assigned a key and velocity range.

By default, the entire available key/velocity range is set (C-2 - G8 / 0-127).

→ You can change Key Range values by clicking in the Key Range Lo/Hi fields and moving the mouse up or down with the mouse button pressed.

The horizontal strips in the area below the keyboard reflects the set Key Range for the corresponding instrument device. You can also change the Key Range by dragging the end handles of the strip. By assigning Key Ranges to instrument devices in a Combi, you can create splits, for example where the lower octaves will play a bass sound and the upper ranges play a string pad.

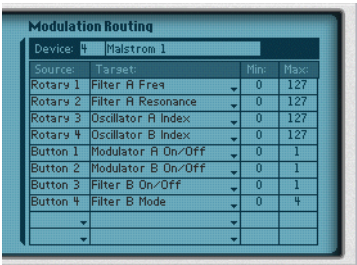


In this picture, notes from C2 and up will trigger the Malström, whereas notes below C2 will not.

→ By clicking in the Velocity Lo Vel/Hi Vel fields and moving the mouse up or down with the mouse button pressed you can assign a velocity range for a selected instrument device.

By setting different velocity ranges for layered instrument devices you can determine which device(s) will sound according to how hard or soft you play.

→ The Modulation Routing section allows you to assign device parameters to the 4 Rotary knobs and 4 buttons on the Programmer panel.



All the parameters of a selected device are available by clicking in the “Target” column. Selecting a parameter assigns it to the corresponding Rotary knob or button. Buttons are used to toggle between two values (e.g. on/off), and the Rotary knobs can be assigned to generate continuous values over a specified range. The controls can be assigned multiple functions, e.g. a knob can change the filter frequency for one device and the master volume for another device etc.

That concludes this introduction to the Combinator!

Check out the included Combi patches in the Factory Soundbank for more ideas and tips on how the Combinator can be used.

For a complete description of the Combinator, please refer to the Combinator chapter in the Operation manual pdf.



REASON

9

→ Using Pattern Devices

About this chapter

As of this writing, Reason includes two pattern-based devices: the Redrum drum computer and the Matrix Pattern Sequencer (additional pattern devices may be added in upcoming versions). While these two devices are very different in most ways, they handle patterns following the same basic rules, as described in this chapter.

! For details about the respective devices, see the Operation Manual pdf.

What are Pattern Devices?

A pattern device contains a built-in pattern sequencer. Unlike the main sequencer in Reason, a pattern sequencer repeatedly plays back a pattern of a specified length. The typical example in the “real world” (as well as in Reason) is a drum machine which plays drum patterns, usually one or two bars in length.

Having the same pattern repeat throughout a whole song may be fine in some cases, but most often you want some variations. The solution is to create several different patterns and program pattern changes (automatic switching from one pattern to another) at the desired positions in the song.

How Pattern Devices integrate with the main Sequencer

The built-in pattern sequencer in a pattern device interacts with the main Reason sequencer in the following ways:

- **The tempo set on the transport panel is used for all playback.**
- **If you start playback for the main sequencer (on the transport panel), all pattern devices will automatically start as well (provided their pattern sequencers haven't been disabled - see below).**
- **You can mute and solo pattern device tracks in the sequencer.**
If a pattern device has a track in the sequencer and you mute this track, the pattern device will automatically be muted as well. This is indicated by a Mute indicator on the device panel. Note that if several tracks are connected to the pattern device, all of these must be muted for the device to be muted.



This Redrum device is muted.

- **You can also run a pattern device separately (without starting the main sequencer or other pattern devices) by clicking the Run button on the device panel.**

This starts the built-in pattern sequencer in the device. To stop playback, click the Run button again or click the Stop button on the Transport panel.



The Run button on the Redrum drum computer.

- **If you are running a pattern device separately and start playback of the main sequencer, the pattern device will automatically restart in sync with the sequencer.**
- **Pattern changes can be controlled by pattern change events in the main sequencer.**
In other words, you can record or create pattern changes in the main sequencer, and have them occur at the correct position on playback.
- **If the pattern device has a built-in sound source (such as Redrum), this can also be played by the main sequencer, or via MIDI.**
You can combine the built-in pattern playback with playback from the main sequencer or via MIDI. For example, this allows you to add variations or fills to a basic pattern.
It is also possible to disable the pattern sequencer totally, converting the device to a pure sound module. This is done by deactivating the Enable Pattern Section switch.



Read more about controlling devices from the main sequencer in the Operation Manual pdf.

Selecting Patterns

Each pattern device has 32 pattern memories, divided into four banks (A, B, C, D).



The Bank and Pattern buttons for the Matrix pattern sequencer.

- **To select a pattern in the current bank, click on the desired Pattern button (1-8).**
If you like, you can assign computer key commands and/or MIDI messages to pattern selection. See the Operation Manual pdf.
- **To select a pattern in another bank, first click the desired Bank button (A, B, C, D) and then click the Pattern button.**
Nothing happens until you click the Pattern button.

The pattern change takes effect on the next downbeat according to the time signature set in the transport panel.

The Pattern Enable switch



The Pattern Enable switch in the Redrum and the Matrix.

Next to the Bank and Pattern buttons you will find an additional switch, which is normally activated. If you click this to turn it off, the pattern playback will be disabled, starting at the next downbeat - exactly as if you had selected an empty (silent) pattern. For example, this can be used for bringing different pattern devices in and out of the mix during playback.

Programming a Pattern

The actual programming procedure differs for the different devices (see the Operation Manual pdf for descriptions of the Redrum and Matrix, respectively).

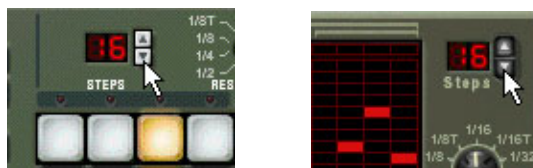
However, some basic principles are common for all pattern devices:

Steps

Patterns consist of a number of discrete steps. For each step, you can enter a note, a CV value or various properties, depending on the device. When you run the pattern, each step will be played back in turn and will play a sound or send out the information programmed for this step. If you have ever used a drum machine, this will be obvious to you.

Pattern Length

For each pattern, you can specify a length, i.e. how many steps it should contain. The maximum pattern length is different for different devices.



The pattern length selector for the Redrum (left) and the Matrix (right).

Pattern Resolution

The pattern resolution determines the length (note value) of the steps. When the pattern resolution is set to 1/16, each pattern step will be a sixteenth note, when set to 1/8, each step will be an eighth note, etc.



The Resolution control on the Matrix. As with the pattern length value, you can program different resolution settings for different patterns.

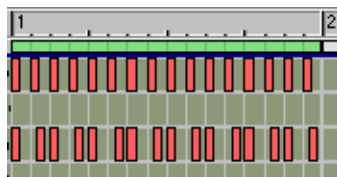
If you change the resolution of an existing pattern, the audible effect will be a change of pattern playback speed. This may seem strange at first, but if you think about it, it's logical:

Let's say you have a 16 step pattern with resolution set to 1/16. The length of each pattern step is then one sixteenth note, and the whole pattern plays back over a whole 4/4 bar (16 sixteenth notes = one whole bar).

Now, if you change the resolution to 1/32, each step will be a 1/32 note - half its original length. There are still sixteen steps. This means that the whole pattern plays back over half a bar ($16 * 1/32 = 1/2$). In other words, the pattern plays back at double speed.

Pattern Shuffle

Shuffle is a rhythmic feature, that gives the music a more or less pronounced swing feel. It works by delaying all sixteenth notes that fall in between the eighth notes.



Straight sixteenth note pattern

Sixteenth note pattern with shuffle.

In Reason, you can activate or deactivate shuffle individually for each pattern in a pattern device. However, the amount of shuffle is set globally with the Pattern Shuffle control on the transport panel.



The Shuffle on/off switch in the Redrum (left) and the Pattern Shuffle control on the transport panel (right).

Clearing a Pattern

To clear (empty) a pattern, select it and use the Clear Pattern command on the Edit menu or device context menu.

! Note that clearing a pattern doesn't affect the pattern length, resolution or shuffle settings!

Using Cut, Copy and Paste

By using the Cut, Copy and Paste Pattern commands on the Edit menu or device context menu, you can move or duplicate patterns between devices of the same type. The following rules apply:

- **Copy Pattern makes a copy of the currently selected pattern and places the copy on the clipboard.**
- **Cut Pattern moves the currently selected pattern to the clipboard.** This is the same as first performing Copy Pattern and then Clear Pattern.
- **Paste Pattern copies the pattern on the clipboard to the selected pattern location in the selected device.** This overwrites the selected pattern with the one on the clipboard.

Transferring patterns between Reason songs

If you want to copy patterns between different Reason songs, you use copy and paste:

1. **Open both songs.**
2. **Select the pattern you want to copy.**
3. **Select Copy Pattern from the Edit menu or the device context menu.** You can also hold [Command] (Mac) or [Ctrl] (Windows) and press [C] to copy.
4. **Make the other song active.** This is done by clicking in the song window or by selecting the song from the Windows menu.
5. **Select the bank and pattern location to which you want to copy the pattern.** Note that any pattern already stored in that location will be overwritten!
6. **Select Paste Pattern from the Edit menu or the device context menu.** You can also hold [Command] (Mac) or [Ctrl] (Windows) and press [V] to copy.

✦ If you want to use the same patterns in several songs, you could either create a "Pattern Supply" Reason song and copy patterns from this, or program the patterns into your Default Song (see page 105).

Pattern Functions

When a pattern device is selected, you will find some specific pattern functions on the Edit menu (and on the device context menu). Below the three basic types of pattern functions are listed. However, the exact names and functionalities depend on the device type - refer to the Operation Manual pdf for details.

Shift

The Shift functions move the notes in a pattern one step to the left or right, or transposes them one semitone up or down (depending on the device). This function can be used for interesting rhythmic or melodic effects, or as a way to rectify patterns for which the first step isn't on the proper downbeat.

Randomize

The Randomize functions create random patterns. These can often be great starting points and help you get new ideas.

Alter

The Alter functions modify existing patterns. Note that there must be something in the pattern for the function to work on - using an Alter function on an empty pattern will not do anything.



REASON

10

→ The Browser

Background

About ReFills

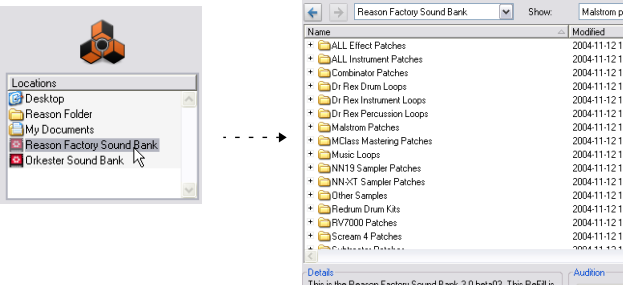
A ReFill is a kind of component package for Reason which can contain patches, samples, REX files, Soundfonts and demo songs. If you like, you could compare ReFills to ROM cards for a synthesizer. On your computer, ReFills appear as large files with the extension “.rfl”.

All sounds included with Reason are embedded in two ReFills; “Reason Factory Sound Bank” and “Orkester”, which were both copied to the Reason Program folder during installation. Additional Propellerhead ReFills are available for purchase. You can also download ReFills from other Reason users on the Internet, purchase them from other sample manufacturers, etc.

🌀 Samples (Wave and AIFF files) are compressed to about half their original file size when stored in ReFills.

In Reason, you can use the Browser to list and access the embedded sounds and other components within the ReFills, just as if the ReFills were folders on your hard disk.

Clicking on the ReFill in the Browser Locations list...



...opens it for navigation, just like a folder.

Furthermore, if a song makes use of components from ReFills, Reason will tell you which ReFills are required.

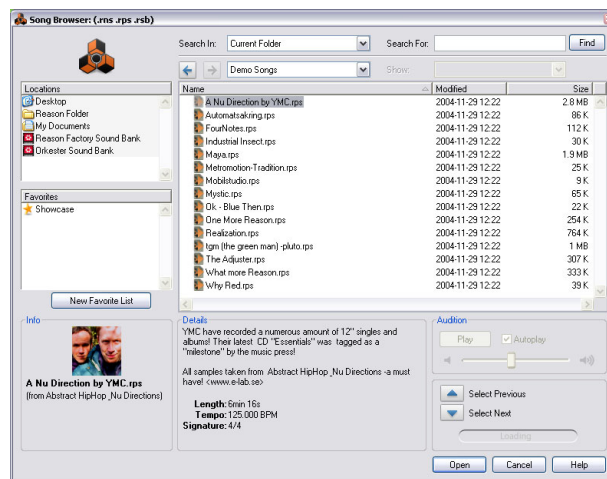
Reason File Formats

The following table lists the file formats that you can browse and open using Reason’s Browser:

File type	Extension	Description
Song	.rsn	This is the main document format in Reason. It contains your music and the setup of the rack, along with references to any used samples and loops (or it can contain the actual samples and loops, if you have made the song “self-contained”).
Published Song	.rps	A published song is a self-contained song intended for playback only. It cannot be changed, its components cannot be extracted and it is not possible to export it as an audio file.
Combinator Patch	.cmb	The Combinator (see page 72 for an introduction to this special device) can store/recall combinations of Reason devices. Combinator patches (Combis) will save all panel settings (as well as sample references if used) for all devices that are part of the Combi. In addition, all routing (audio/CV) between devices in the Combi are included in the patch.
Subtractor Patch	.zyp	This is a patch for the Subtractor synth device, containing all panel settings. You store your synth sounds by saving Subtractor patches.
Malström Patch	.xwv	This is a patch for the Malström synth device, containing all panel settings. You store your synth sounds by saving Malström patches.
NN19 Sampler Patch	.smp	This is a patch for the NN19 Sampler device, containing references to and settings for all used samples, along with panel settings.
NN-XT Sampler Patch	.sxt	This is a patch for the NN-XT Sampler device, containing references to and settings for all used samples, along with panel settings.
Redrum Patch	.drp	This is a patch for the Redrum drum machine device. It contains information about which drum samples are used, along with all drum sound settings. In effect, a Redrum patch is a stored drum kit.
RV7000 Patch	.rv7	This is a patch for the RV7000 reverb effect, containing all panel settings.

File type	Extension	Description
Scream 4 Patch	.sm4	This is a patch for the Scream 4 distortion effect, containing all panel settings.
REX files	.rx2, .rcy or .rex	REX files are created in another Propellerheads application, the ReCycle loop editor. They contain audio loops chopped into slices, with one slice for each significant beat in the loop. By loading a REX file into the Dr. Rex Loop Player device, you can play back the loop in virtually any tempo (without affecting the pitch), manipulate individual beats in the loop, extract timing info, etc. Note that you can also load REX files into the samplers and the Redrum drum machine.
Samples	.wav or .aif	The NN19 Sampler and the Redrum drum machine play back samples, in Wave or AIFF format with support for a large number of resolutions and sample rates. You can use files of different formats in the same device - one drum sound can be an 8-bit sample, the next a 16-bit sample, etc.
Soundfont Bank	.sf2	The Soundfont format was co-developed by E-mu Systems and Creative Technologies and is used with many audio cards and software synthesizers. SoundFont banks store wavetable synthesized sounds, allowing users to create and edit multi-sampled sounds in special Soundfont editing programs. The Soundfonts can then be played back in wavetable synthesizers, typically on audio cards, thereby effectively turning an ordinary sound card into a sampler. The NN-XT and NN19 Samplers and the Redrum drum machine allow you to browse and load Soundfonts. Regardless of which editing program was used to create them, these banks are similarly and hierarchically organized, with folders for instruments, presets, samples etc. The NN-XT, NN19 and the Redrum lets you load individual samples and presets from a Soundfont bank, but <i>not</i> the complete Soundfont.

About the Browser



The Browser is a special file dialog that appears when you open songs or load patches, samples or REX files, from within a ReFill or from regular file folders.

Apart from standard file folder browsing, the browser dialog offers you several useful functions:

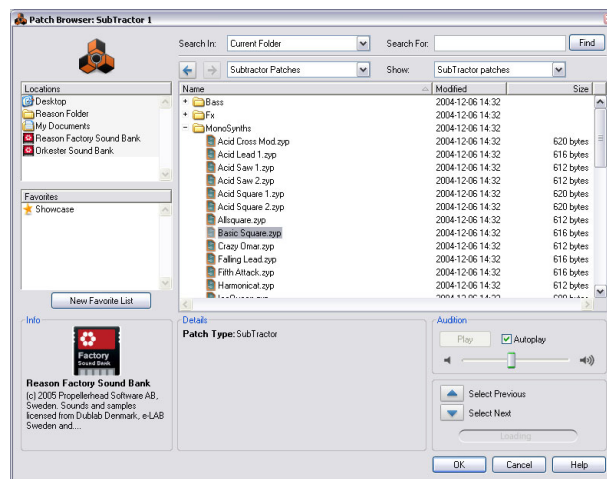
- **Search for files by name and/or type** - see [page 92](#).
- **Use “cross-browsing” to search for patches belonging to any type of device.**
For example, you open the browser from a Subtractor device to browse for a suitable patch. But instead of limiting the Browser to show only Subtractor patches, you can choose to browse for any type of instrument patch. If you select a patch with a different format than the device you “started” browsing from, the original device will be replaced by the new device. See [page 90](#).
- **Create Favorite Lists containing shortcuts to your Favorite files for instant access.**
See [page 93](#).
- **Audition instrument patches, audio samples and loops on the fly.**
- **Save shortcuts to various locations on your local drive(s).**
See [page 89](#).

Opening the browser

You can use any of the following commands to open the Browser dialog (what file types you can browse depends on which method you used to open the Browser dialog):

- ➔ **By selecting “Open” from the File menu.**
This opens the Song Browser where you can select to open a saved Song.
- ➔ **By selecting “Browse Patches” on the Edit menu with a patch device selected (or by clicking the “Browse Patches” button on a device panel).**
This opens the Patch Browser allowing you to browse patches for the selected device. You can also use “cross-browsing” (see [page 90](#)) to select patches for other device types.
- ➔ **By selecting “Browse Samples” on the Edit menu with a sample device selected (or by clicking the “Browse Samples” button on a device panel).**
This opens the Sample Browser, where you can browse for samples in the supported audio formats.
- ➔ **By selecting “Browse ReCycle/REX Files” on the Edit menu with a Dr. Rex Loop Player selected (or by clicking the “Browse Loops” button on a device panel).**
This opens the REX File Browser, allowing you to browse for REX loops.
- ➔ **By selecting “Import MIDI File” from the File menu.**
This opens the MIDI File Browser, allowing you to browse for MIDI files.
- ➔ **By selecting “Create device by browsing patches” from the Create menu.**
This allows you to browse patches for any device. When you select a patch in the browser (without clicking “OK” in the browser dialog), the corresponding device is automatically created in the background, together with a corresponding sequencer track if an instrument patch is selected. See [page 91](#).

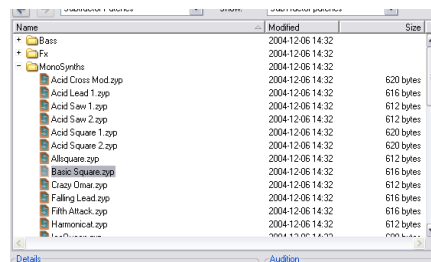
Browser elements



The Patch Browser dialog.

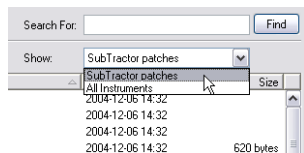
Regardless of what browser mode is chosen (song/patch/sample etc.), the Browser dialog basically contains the same main elements, although items may be grayed out if not applicable. The dialog contains the following elements:

File and folder list



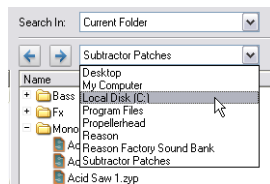
This is the main browser list, showing the contents in a selected root folder - see [page 88](#).

Show pop-up menu



This is only available in the Patch browser (it is otherwise grayed out). It determines what patch types are shown in the files and folder list view and thus which patches can be selected. See [page 90](#).

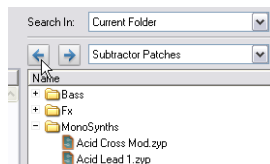
Where pop-up menu



The field above the file and folder list displays the name of the currently selected root folder.

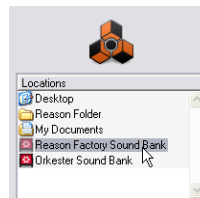
- By clicking in the field a pop-up menu is shown, allowing you to move up in the folder hierarchy (search results and Favorites lists, however, are shown as “flat” lists with no folder hierarchy).

Back/Forward buttons



These arrow buttons allow you to move between the browser locations opened while browsing, much like pages in a web browser. When the browser dialog is closed, the location list is cleared.

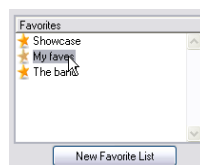
Locations list



This is a list of shortcuts to different locations. You can manually add any locations (on any local drive) to this list.

Selecting an item in this list will open the corresponding folder/ReFill as the root in the main files and folder list - see [page 88](#).

Favorites section



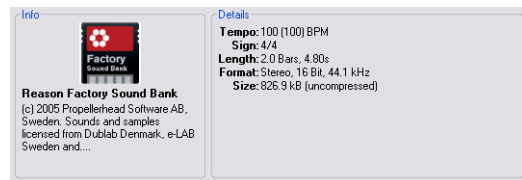
In the Favorites section of the dialog you can create folders containing shortcuts to patches, samples or song files - see [page 93](#).

Search pop-up and text field



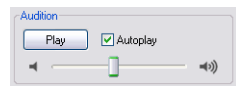
These items allow you to specify a search location and to enter a text string to search for, respectively. The Search function is described on [page 92](#).

Info and details



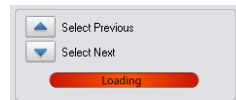
The Info section in the left corner can show Song/ReFill splash images and the Details section will show information about the item currently selected in the file and folder list. Exactly which information is shown depends on the file type. For example, samples or REX files contains information about the file format and length of the selected file, while a selected song file can display comments from the author (Song Information, see page 103), etc. If the selected file is part of a ReFill, this will be indicated regardless of the file type.

Audition section



This section contains controls for auditioning samples and REX files - see [page 89](#).

Select Previous/Next arrow buttons

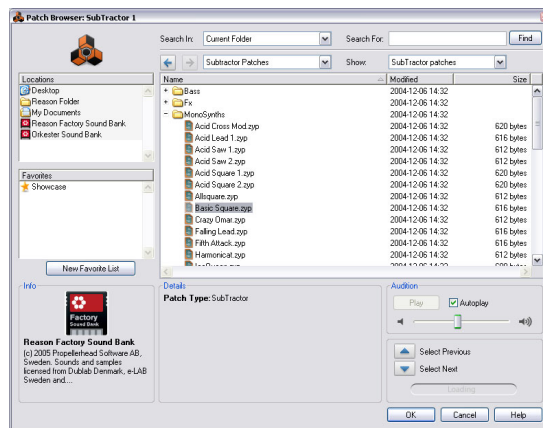


These buttons allow you to move the current file selection up or down in the list. In the Patch or Sample Browser, a selected file (patch or sample) is automatically loaded in the background.

Loading indicator

This icon will light up to indicate that a patch or sample is loading.

Navigating in the Browser



Here, the Patch Browser was opened from a Subtractor device, allowing you to browse for Subtractor patches.

When navigating in the Browser, items are shown as a hierarchical list in a selected root folder, just like in your computer finder.

All folders and subfolders within a root folder are shown, but only files of the relevant type (i.e. songs/samples/patches etc.) can be viewed/selected in the Browser. For example, if you have selected to browse samples for a NN-XT device, only audio samples will be shown in the Browser.

- Click on the plus sign (Win)/arrow (Mac) beside a closed folder to open it. If the folder contains files of the relevant type, these will be shown.
- Double-clicking a folder in the list opens it as the root folder in the Browser.
- The Name, Modified, and Size columns show the name of the folder or file, the modified date (files only) and the size (files only), respectively. Clicking on a column header sorts the files accordingly (i.e. alphabetically, by date saved or by file size).
- You can use the Back/Forward buttons to move between different locations you have opened in Browser. When you close the Browser this location list is cleared.
- The “Select Previous/Next” arrow buttons allow you to move between files in the current list. Folders are skipped.
- The “Where” pop-up list allows you to move up in the folder hierarchy when the Browser points to a specific folder location (see “About hierarchic and flat lists” below).

About hierarchic and flat lists

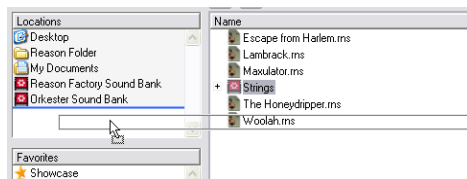
In certain circumstances the Browser will display a flat list without any folder hierarchy. In such cases there will be an extra “Parent” column displaying the parent folder location for all files. The “Where” pop-up will then contain a shortcut to a selected file’s parent folder. Flat lists are shown in the following cases:

- When the Browser is showing a search result - see [page 92](#).
- When the Browser is showing a Favorites folder list - see [page 93](#).
- When the Browser is showing a browse list stored for a device in a saved song - see [page 93](#).

Using Locations

To help you to find your files quickly, you can add shortcuts to the folders used to store your samples, patch files etc. to the list in the Locations section. By default, the Locations list contains five fixed locations; the computer Desktop, the Documents folder, the Reason Program folder and the Factory/Orkester Sound Banks.

- **Selecting a Location in the list opens it as the root folder in the Browser.**
- **To add a location, select a folder or ReFill in the main browser list and drag it into the Locations list with the mouse button pressed.** Any new locations will be added below the list of fixed locations. Manually added locations can be reordered by drag and drop.



- **To remove a location, select it in the Locations list and press [Backspace].** The default locations cannot be removed.
- **Manually added locations are stored in the Preferences.**
- ! **If a stored location has been removed or is unavailable, a warning triangle with an exclamation mark is shown before the location name in the list.**

Selecting and auditioning patches

In the Patch Browser, selecting a patch automatically loads it in the background (i.e. with the Browser dialog still open). This allows you to preview patches before confirming a selection by clicking OK in the Browser.

- For instrument patches, make sure MIDI input is directed to the sequencer track connected to the device you are browsing from. Play a few notes when selecting a new patch to audition it.
- For effect patches you can activate loop playback before opening the Patch Browser from the effect. Once the Browser dialog is open, you can browse to a folder containing compatible patches and step through them to hear how the patches affect the sound.

★ **You can also audition patches for any instrument or effect device - not just the device you opened the browser from! See “Cross-browsing patch files” on page 90.**

Selecting and auditioning samples

For samples and REX loops you can use the Audition controls to preview the audio.

This is done in the following way:

- **Select the file in the file list and click the Preview - Play button to the right.** The file is played back. During playback, the Play button in the Audition section is relabeled to “Stop” - click this to stop playback.



- **You can also activate the Autoplay checkbox and simply select the file you want to audition.** The selected file is automatically played back. Again, click the Stop button to stop playback.

About browsing large patches

As stated previously, when you are browsing patches (or samples), these are automatically loaded in the background when selected. Most of the time, this happens instantaneously. Bear in mind, however, that some files (especially big Combinator patches, which can contain any number of devices and samples) can take several seconds to load.

If you select a particularly large patch by mistake, you can abort the loading by simply selecting another patch.

Selecting multiple files

It is possible to select multiple files in the Browser, by using standard [Shift] or [Ctrl] (Win)/[Command] (Mac) selection techniques. This, however, does not mean that the selected files can be loaded.

There are basically two instances where selecting several files in the Browser file list is relevant:

- **It is possible to load several samples simultaneously into the NN-X^T and NN19 sampler devices.**
See the NN19 and NN-X^T chapters in the “Operation Manual” pdf for details.
- **You can select several files to add them to a Favorites list in one go - see [page 93](#).**
- ! **In cases where several selected files (e.g. patches or songs) cannot be loaded, the OK button in the Browser is grayed out.**

Cross-browsing patch files

Cross-browsing patches is a powerful feature of the Patch Browser. It allows you to browse for any type of patch (instrument or effect - see below), regardless of which device you opened the Browser from.

About instrument and effect patches

Patches are internally divided into two patch categories in the Browser; instrument patches and effect patches (the Browser “knows” what type of patch it is).

This is because instrument patches and effect patches are fundamentally different - instruments are played, and effects are used to process sound - and you would logically browse for one or the other, but not both.

When browsing patches from an existing instrument device, the options on the Show menu are:

- “XXX Patches” (where XXX is the device type you opened the Browser from, e.g. NN-X^T).
- “All Instruments” will show patches for any instrument device.

When browsing patches from an existing effect device, the options on the menu are:

- “XXX Patches” (where XXX is the device type you opened the Browser from, e.g. RV7000).
- “All Effects” will show patches for any effect device that uses patches, including Combi patches.

Cross-browsing - an example:

1. **You are playing a Subtractor device but feel that the sound isn’t quite what you had in mind, so you open the Browser to check out some other patches.**
2. **After browsing Subtractor patches for a while, you still haven’t found the type of sound you wanted, so you click the “Show” pop-up and select “All Instruments” from the menu.**
Now you can select instrument patches for any device. You decide to browse a folder containing Malström patches. You can use the Previous/Next buttons to step through the files in the selected folder.
3. **As soon as you select a Malström patch in the Browser, a Malström device replaces the Subtractor in the background (the Browser is still open).**
The sequencer track which was previously connected to the Subtractor is now connected to a Malström with the patch selected in the Browser loaded.
- **Note that the name of the sequencer track is not automatically changed to reflect the new device.**
This may or may not matter. If the track was named “Bass” (and it is a bass sound you are looking for), this obviously works fine. But if the track was named “Subtractor 1” and you end up with another device connected, it might be better to rename the track to avoid confusion.
4. **You can continue to browse patches and play your keyboard to audition them.**
Each time you select a patch type belonging to a different device, a corresponding instrument device is created in the background, replacing the previous instrument.
5. **When you have settled on a patch - for whatever instrument device - click OK to confirm the selection and close the dialog.**
Clicking Cancel will return to the same state as when opening the Browser.
- **If you use cross-browsing for an effect patch it works in the same way - selecting an effect patch of a different format will replace the current effect in the background with a device of the selected format.**

Special instances of cross-browsing

There are a few instances when replacing an existing device by browsing might lead to lost connections:

- **When a device is replaced by another device type, audio connections may be lost.**
An example is replacing an NN-XT (which can use up to 16 outputs) with a Subtractor (which only has one output).
- **When a device is replaced by another device type, CV connections on the back panel may be lost.**
The only connections that are retained between device types are Sequencer Control CV/Gate in.
- ! **If you encounter such situations and you want to restore the original connections, use the “Undo” function. Browsing back to the original device patch will not restore lost connections.**

Create device by browsing patches

This allows you to browse for any kind of instrument or effect patch. This is essentially the same as cross-browsing, except that you do not start with an existing device.

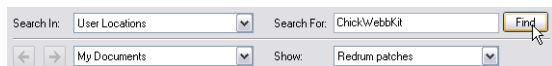
1. **Select “Create device by browsing patches...” from the Create menu.**
The Patch Browser opens.
2. **On the “Show” pop-up menu there will now be two options; “All Instruments” and “All Effects”. Select an option according to the type of device you wish to create.**
3. **When you select a patch, a corresponding device is created automatically together with a corresponding sequencer track.**
MIDI input will be automatically set to the new track so that you can audition the patch by playing your master keyboard.
4. **The device will be auto-routed according to standard rules.**
E.g. if it is an instrument device, it will be connected to the first available mixer channel - see page 51.
5. **Click OK when you have found the patch you wanted, to confirm the creation of the new device and to close the Browser.**

About patch formats and sampler devices

As both the NN-XT and NN19 sampler devices can load patches in the NN19 (.smp) and REX (.rx2/.rcy/.rex) formats, there has to be certain rules regarding cross-browsing.

- **The basic rule is that the Browser will load such patches into the original device type (the device you opened the browser from), whenever possible.**
Thus, when the patch format is NN19 (.smp) or REX (.rx2/.rcy/.rex) and you are browsing from an NN19 device, the patch will be loaded into this device.
- **If you are browsing from any other type of device, these patch types will be loaded into a NN-XT device.**
- **If you are using the “Create device by browsing patches” function a NN19 (.smp) patch will create a NN19 device and a REX patch will create a NN-XT device.**

Using the Search function



The Search function allows you to search for files by name and/or type.

Search criteria

The Browser mode (patch, song etc.) determines what file type(s) you can search for, just as when you are manually navigating in the Browser.

The Search in pop-up menu

This pop-up menu allows you to select where to search. The options are as follows:

- "Local disks" will perform a complete search of all local drives.
- "User Locations" will search all folders and ReFills stored in the Locations list (except the Desktop).
- "Current Folder" will limit the search to the currently selected root folder (including subfolders).

The Search For text field

This is where you can enter a text string to search for.

→ You can specify one or several words, whole or partial.

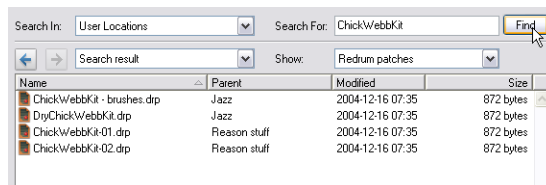
If you specify more than one word, the search will show results that match *all* specified words. Text search is not case sensitive.

- ★ **Note that you don't have to enter text to use the Search function. Depending on the selected Browser (Patch, Sample etc.), you can also simply search for files of the corresponding type in the selected location(s).**

Executing the search

→ Clicking the "Find" button will execute the search according to your specifications.

After the search, the search result is shown as a flat list in the Browser, and the Where pop-up field reads "Search result".



→ A new "Parent" column also appears, listing the name of the parent folder for each file.

If you select a file you can pull down the Where pop-up above the file list and select "Go to Parent folder" - this opens the parent folder for the selected file.

The name of the containing folder is also part of the search result (given that it contains files of the appropriate type). This means that if you are searching for "Guitar", all samples or patches with "Guitar" in the filename will be shown, but also all samples or patches contained in folders with "Guitar" in the name.

→ If you have searched for patches, you can select to show all patches that match the search criteria by selecting to show "All Instruments" on the Show pop-up.

This will extend the search result to show all patches that matches the search text. Note that you do not have to repeat the search to do this.

Opening files

When you have navigated to the desired folder (on your hard disk or within a Re-Fill) and located the desired file, you open it by double clicking it in the file display or by selecting it and clicking the OK button.

As described earlier, patches and samples are loaded directly upon selection, so clicking OK doesn't actually "open" the file, it simply confirms the selection, and closes the Browser dialog.

About browse lists

When you click OK to open a file from the Browser, the file and folder list shown at that time is memorized for that device. This is called a "browse list".

For patches (and to a certain extent samples) this list provides a specific functionality:

- **The browse list is what applies when changing patches using the Next/Previous Patch buttons on the front panel of a device (or from patch selectors on a control surface).**
It is also the active browse list that is shown on the patch list opened by clicking in the patch name field for a device.
- **For samples, the browse list applies when changing samples using the Next/Previous Sample buttons on the front panel of a sampler device.**

What can a browse list contain?

- **When you confirm a patch or sample selection by clicking OK in the Browser, the resulting browse list will include the files contained in all currently open folders in the Browser.**
If you open the Browser again for the same device, the same file and folder structure is shown.
- **If you save the current song and reopen it, the items in the browse will be shown as a "flat" list, and the "Where" pop-up field will show "Document Browse List".**
In such cases, the Browser will show the "Parent" column, listing the names of the containing folders. The Where pop-up will also contain the item "Go to parent folder" for a selected file.
- **A browse list could also be a Search result, or a Favorite list.**
Favorite Lists provide a way of controlling/filtering which patches or samples will be available on a browse list for a device - see below!

! **Note that if you opened a patch after having used cross-browsing (see page 90) or used the Search function (see page 92), the active browse list could contain patches in different formats, and stepping through patches from the device panel could change the device type.**

Using Favorites

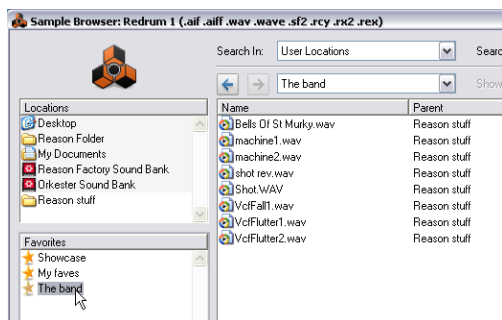
Favorites provide a way to group and order files that may be physically located anywhere on your local drives. Any file that can be loaded in Reason (songs, patches, samples etc.) can be added to a Favorites folder. Only shortcuts to files are added - the original files aren't moved.

This is particularly useful for handling patches. By adding the patches you need for a given situation to a Favorite list, you can determine exactly which patches will be selectable for a device, and in what order. You can then sequentially step through these using patch select buttons on your MIDI keyboard or control surface device. See page 94 for a practical example of this.

- **To add a New Favorite List, click the "New Favorite List" button.**
An empty folder is created, named "New Favorite List". The Browser list remains unchanged. If you double-click the folder you can type in a new name for the list.
- **To add a file to the Favorite List, select it in the Browser and drag it to the Favorite List folder.**
You can also select multiple files using standard selection techniques - [Shift] and/or [Ctrl] (Win)/[Command] (Mac) - and drag these into the folder in the same way.

- **By selecting the folder, the currently selectable contents of the Favorite list is shown in the Browser list.**

What is selectable/shown depends as usual on the current Browser mode. If you select a Favorite List folder that contains samples, these will only be shown if the Sample Browser is selected.



- **When a Favorites list folder is selected in the Browser, an additional “Parent column” is shown (just like Search results), listing the name of the containing folder for each file in the list.**
Files in a Favorites list have an order, and can not be sorted by clicking the column headers. However, they can be reordered by using drag and drop.
- **To remove a file from a Favorite list, open the list, select the file and press [Backspace].**
This removes the shortcut only - the original file isn't affected.
- **To remove a Favorite List, select it in the Favorites section and press [Backspace].**

Using Favorites - a practical example

Here follows a practical example of how you can use Favorites for patch files:

You are preparing for a live gig as a keyboard player. You know the songs, and you have chosen suitable patches (in various device formats) for each song.

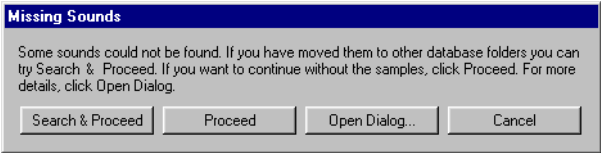
You want to use Reason, but you want to be able to switch to the right patch for each song using your MIDI keyboard, and not have to worry about fiddling with the computer during your performance.

Here is how this can be done by using Favorites:

- Set up a Reason song with a mixer device (and send effects if desired).**
 - Create an instrument device, for example a Combinator.**
It doesn't matter which instrument device you choose at this point. Just make sure that MIDI input is set to this track in the sequencer.
 - Open the Patch Browser from the instrument device.**
 - Click the “New Favorites List” button.**
A new folder appears in the list. Double-click it and type in an appropriate name.
 - Select to show “All Instruments” on the Show pop-up.**
Now you can start locating the patches you need by navigating in the Browser.
 - When you have located a patch that you need for the gig, drag it from the Browser into the Favorites folder.**
If this was a patch in a different format than the instrument you created, a device of this type will replace the original device.
-
- | Folder Name | Date |
|--------------------------|---------------|
| Showcase | 2004-12-06 14 |
| My faves | 2004-12-06 14 |
| The band | 2004-12-06 14 |
| Effect Device Patches | 2004-12-06 14 |
| Guitar and Plucked | 2004-12-06 14 |
| Organ | 2004-12-06 14 |
| Pads | 2004-12-06 14 |
| Pattern Based | 2004-12-06 14 |
| Acid Box-FP.cmb | 2004-12-06 14 |
| Ambient Patterns-FP.cmb | 2004-12-06 14 |
| Beatbox - LC.cmb | 2004-12-06 14 |
| Beatbox Follows - PD.cmb | 2004-12-06 14 |
- Continue to add the patches in the same way until you have all the patches you need.**
 - When done, select the Favorites List folder.**
The folder is opened in the Browser, listing all the patches you added.
 - Use drag and drop to order the patches according to the set list.**
 - Select the first patch in the Favorites list and click OK.**
The browser closes with the patch loaded.
- **If you have a MIDI keyboard or control surface with programmable buttons, you can assign a button to “Select next patch” on the device.**
This is described in the Operation Manual pdf.
- Save the Song.**
 - At the gig, open the song, and the first patch will be loaded.**
 - When the first song is finished, use the “next patch” button on the device or on your MIDI keyboard and the next patch in the Favorites list will be loaded!**

Handling Missing Sounds

Sampler patches, drum machine patches and Soundfonts contain references to samples - files on your hard disk. The same is true for songs that contain samples (in sampler or drum machine devices) or REX files. If any of these files have been moved, renamed or removed when you try to open the patch or song, Reason will alert you that files are missing:



Click one of the four buttons:

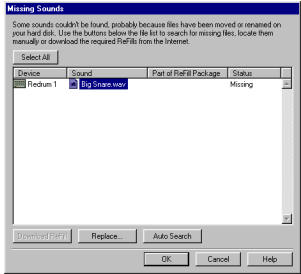
Option:	Description:
Search & Proceed	Reason will search for the missing files in all Locations added by the user and in all known ReFills. <ul style="list-style-type: none">If all files are found, the song or patch will be opened without further ado.If one or more files cannot be found, the Missing Sounds dialog will appear (see below). Note that the file search will look at the file names only - files that have been renamed will not be found!
Proceed	The song or patch will be opened, with sounds missing. This means that sampler patches, drum machine patches and/or loop players will not play back correctly. On the device panels, missing samples are indicated with an asterisk (*) before the file names:



The "Intruder" sample is missing.

Open Dialog	Opens the Missing Sounds dialog (see below).
Cancel	Cancels the operation, i.e. no song or patch will be opened.

The Missing Sounds dialog



This dialog appears if you clicked the Open Dialog button in the previous dialog, or if you clicked the Search & Proceed button but the program couldn't find all missing sounds.

The main display in the dialog lists all missing files. The four columns show the following properties:

Column	Description
Device	Shows the name of the device in which the missing sound is used, along with a device type icon.
Sound	Shows the name of the missing file.
Part of Re-Fill/Soundfont	If the missing file is part of a ReFill, or a Soundfont within a ReFill, this column shows the name of the ReFill/Soundfont. If there is an URL (Internet address) associated with a ReFill, you can download the necessary ReFill(s) from this dialog, as described below.
Status	When the dialog appears, all files will have the status "Missing". Files that are found by the auto-search function or manually replaced will be indicated as "Replaced".

Selecting

The Replace and Search Locations functions (see below) are performed on the files that are selected in the list. This allows you to replace some files manually (necessary if the files have been renamed or are outside the Locations), have the program find other files automatically and skip the rest of the files.

- **To select a file, click on it in the list.**
You can use the standard [Shift] or [Ctrl] (Win)/[Command] (Mac) selection techniques to select several files
- **To select all files in the list, click the Select All button.**
When the dialog first appears, all files in the list are selected.

Search Locations

If you click the Search Locations button, Reason will search for the selected files in all Locations set up in the Browser (except the Desktop). If the program finds a file with the matching name and file type, the new path is stored in the song/patch and the file is shown as “Replaced” in the Status column.

- **Since the file search looks at the file names, files that have been renamed will not be found!**
This also means that if your Locations contain several files with the same name, the wrong sounds may be found.

Replace

Clicking the Replace button opens the browser dialog, allowing you to manually locate each missing file. This allows you to use files that have been renamed. The browser dialog will appear once for each selected file in the list. The name of the file to look for is shown in the Browser window’s title bar.

Search In...

This function is useful when you need to replace a whole lot of samples and you know where these samples are located. A typical example would be if you have reorganized the folder structure on your computer, and the sample folder has been moved in relation to the folder with a sampler patch or song.

- **If you click “Locate”, the Browser opens, asking you to select the sample directory, i.e. the folder in which you know that the samples are located.**
Select either the folder, or a sample in the folder. When you click OK, Reason will search in the selected folder (and its subfolders) only.

Download ReFill

If a missing sound is part of a ReFill (as indicated in the Part of ReFill Package column), and there is a valid URL (Internet address) for this ReFill, you can download the ReFill directly from this dialog (provided you have a working Internet connection):

- 1. Select the sound(s) that use the ReFill.**
You should only select several sounds if they use the same ReFill.
- 2. Click the Download ReFill button.**
This launches your Internet browser and takes you to the URL associated with the ReFill.
- 3. A dialog appears, asking you to download the ReFill. Do so.**
- 4. Click OK.**
Reason automatically scans the downloaded ReFill and locates the files.

Proceeding

At any point, you can click the OK button to close the dialog and open the song or patch. Note:

- **For the files you have found (status “Replaced”), the new paths will be stored in the song or patch.**
However, you need to save the song or patch for the changes to become permanent!
- **If any file is still missing when you click OK, there will be sounds missing in the song/patch.**
Sometimes, you may want to proceed with sounds missing, and then remove or replace the sounds from the device panels in the rack instead.



On the device panels, missing samples are indicated with an asterisk (*) before the file names:

Clicking Cancel will abort the operation, i.e. the song or patch will not be opened.



REASON

11

→ Working with Patches

About Patches

A Reason patch contains settings for a specific device. As explained in the chapter “The Browser”, patches can either be separate files on your hard disk or files embedded in a ReFill.

Eight device types use patches:

- **Subtractor & Malström synth patches contain all settings on the device panel.**

Selecting a patch brings up a new sound, just like when selecting programs or patches on a hardware synthesizer.

- **NN19 & NNXT sampler patches contain information about which samples are used and their settings (key mapping, tuning, etc.), plus the parameter settings on the device panel.**

It is important to note that the sampler patch doesn't contain the actual samples - only information about which sample files are used.

- **Redrum drum computer patches contain a complete “drum kit”, that is, information about which drum samples are used, together with the parameter settings for each drum sound.**

Again, the actual samples are not included in the patch, only file references. Also note that Redrum patches are separated from Redrum *patterns* - selecting a new patch will not affect the patterns in the device.

- **Scream 4 and RV7000 effect patches contain all settings on the respective device panel.**

Selecting a patch brings up a new sound, just like when selecting programs or patches on a hardware effect device.

- **The Combinator (Combi) patch format saves all settings and file references for each device in the Combi, along with the Combinator's own settings; key/velocity zones, modulation routing etc.**

Any audio or CV routing from/to devices that are part of the Combi is also saved.

- ! **Note that patches for devices included in a Combi are not saved individually - e.g. if a Combi includes a Subtractor, and you have tweaked its settings, these settings will be saved with the Combi, but will not be saved as a separate Subtractor patch unless you do so from within the Combi - see [page 99](#).**

- ! **Apart from Combis, patches do not include information about any routing done on the back of the device.**

Selecting a Patch

To select a patch for a device, use one of the following methods:

- **Click the folder button in the Patch section on the device panel.**



- ! **Note: On the panels of the Redrum, NN19 and NNXT devices, there are also other folder buttons, used for loading samples. Make sure you click on the button in the Patch section (next to the patch name display)!**

- **Select the Browse Patches item on the Edit menu or device context menu.**

Note that the Edit menu reflects which device is selected - in other words, you must select the device for the corresponding Browse Patches item to appear on the Edit menu.

In both cases, the Browser dialog appears, allowing you to locate and select the patch, on the hard disk or within a ReFill.

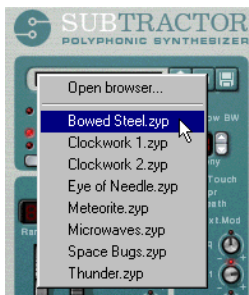
- **Once you have selected a patch, you can step between all the patches in the same folder by using the arrow buttons on the device panel.**

Note that switching patches on a device can also change the actual device! See “About browse lists” on page 93.



- ➔ If you click on the patch name display on the device panel, a pop-up menu will appear, listing all patches in the current browse list- see page 93).

This allows you to quickly select another patch, without having to step through each one in turn.



When you select a patch, the device's parameters will be set according to the values stored in the patch, and the name of the patch will be shown in the patch name display. As with any change you make, this operation can be undone (see page 39).

- ! **Any parameter adjustments you make on the device panel after selecting a patch will not affect the actual patch file (for this you need to save the patch - see below).**

If referenced samples are missing

As described above, patches for the Redrum, NN19 and NNXT contain references to samples. Just like patches, samples can be independent files on the hard disk or elements within a ReFill. However, if sample files have been moved or renamed after a patch was saved, the sample file references in the patch will not be accurate.

If this is the case when you select a patch, the program will tell you so. You can then choose to either manually locate the missing files, to have the program search for them or to proceed with missing sounds. For details, see page 95.

- ! **Proceeding without locating or replacing the missing samples results in silent drum sounds and key zones (for the Redrum and NN19/NN-XT, respectively).**

Saving Patches

Saving device settings in a song

When you save a Reason song, all settings for all devices are automatically included in the song file - there is no need to save the patches separately.

- ! **It's important to realize that it's the actual settings that are saved in the Song - not references to patches on disk. The next time you open the song, all devices will be set as they were when you saved (regardless of whether you have removed or edited any patches on disk).**

Saving device settings as patches on disk

Even though the device settings are stored in the song, you may want to save any settings you have made for a device as a separate patch file. This allows you to use the patch in other songs, and lets you try out other patches in your song without risking to lose your sound.

1. Click the floppy disk button on the device panel.



- ★ You can also select a device and use the Export Patch command on the File menu.

2. In the file dialog that appears, specify a location and name for the patch file and click Save.

- ➔ **Under Windows, the different types of patch files have different file extensions.**

These are ".zyp" (Subtractor patch files), ".xwv" (Malström patch files) ".smp" (NN-19 patch files), ".sxt" (NN-XT patch files), ".cmb" (Combinator patch files) and ".drp" (Redrum patch files).

File extensions are automatically added by Reason when you save. Under Mac OS, file extensions are not needed but it may be a good idea to keep them if you want the saved files to be usable under Windows.

- ➔ **If you have selected a patch, modified it and want to save it with the modifications, you could either save a separate, modified version of the patch (with a new name) or simply overwrite the old patch file on disk.**

As usual, you will be asked whether you really want to replace the existing patch file.

- ! **Note that you can save a patch under the same name and location without having the save dialog appear by holding down [Option] (Mac)/[Alt] (Windows) and clicking the floppy disk button on the device panel. Be aware that this overwrites the original patch!**
- ! **Note also that you cannot save into a ReFill! This means that if you have opened a patch from within a ReFill, modified it and want to save it, you need to save it as a separate file. Preferably, you should also rename the modified patch file, to avoid confusion.**

Copying and Pasting Patches between Devices

A quick way to transfer settings between devices of the same type is to use the Copy and Paste Patch functions. The result is exactly the same as if you had saved a patch on one device and opened this patch on another device - this is just a quicker method.

- ! **Copying and Pasting settings is possible with all instrument device types, except the Dr. Rex Loop Player.**

Proceed as follows:

1. **Select a patch, and/or make the desired settings on the first device.**
 2. **Select Copy Patch from the device context menu or the Edit menu.**
 3. **Select the other device of the same type (in the same song or another song).**
 4. **Select Paste Patch from the device context menu or the Edit menu.**
The settings of the first device (including Redrum and NN19/NNXT sample references) are applied to the second device.
- ! **Note that this operation simply copies the settings from one device to another. Adjusting the settings on one of the devices will not affect the other; neither are the settings connected to any patch file on disk.**

Initializing Patches

Sometimes it is useful to start with a “clean slate” when creating a synth sound, a drum kit or a sampler patch. This is done by selecting Initialize Patch from the device context menu or Edit menu. This sets all parameters to “standard” values. Initializing NN19, NNXT, Dr. Rex or Redrum devices will also remove all sample file references, allowing you to start from scratch.



REASON

12

→ Song File Handling

About Self-contained Songs

The song is the main file format in Reason. A song contains the device setup and all settings in the rack, as well as everything you have recorded in the sequencer.

However, this is not always sufficient! Should you open your song on another computer or send it to another Reason user, you would also have to bring all samples and REX files used by the devices in the song. To make this easier, Reason allows you to create “self-contained” songs.

A self-contained song contains not only the references to the used files, but also the files themselves. You can choose exactly which files should be included in the self-contained song, with the following exception:

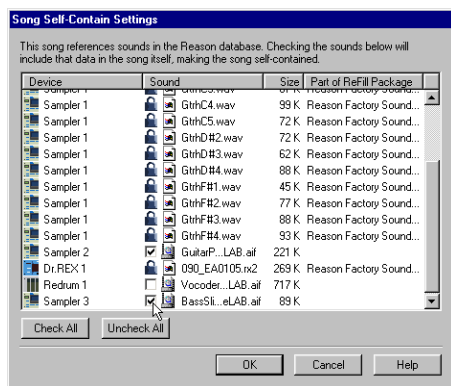
! Files that are part of a ReFill cannot be included in a self-contained song.

If your song contains samples or REX files from a ReFill, other users must have the same ReFill to be able to play the song.

To specify which files should be included in the song, proceed as follows:

1. Pull down the File menu and select Song Self-Contain Settings...

A dialog appears, listing all samples and REX files used in the song.



2. Tick the checkbox in the Sound column for the files you want included in the song.

→ You can use the Check All button to activate all checkboxes in one go.

Similarly, the Uncheck All button deactivates all checkboxes.

→ Files that are part of a ReFill are indicated by a lock symbol instead of a checkbox (since they cannot be included in the song file).

The rightmost column indicates to which ReFill each such file belongs.

3. When you have selected the desired sounds, click OK.

The dialog is closed. The next time you save, the specified sounds will be included in the song file.

! Note that a self-contained song file will be considerably larger than the original song file.

However, samples included in a self-contained song are automatically compressed by approximately 50%, meaning that the self-contained song will still be a lot smaller than the original song and the sample files combined.

“Un-self-containing” a Song

If you have opened a song that is more or less self-contained (i.e. contains one or several sounds embedded in the song file), you may want to extract these sounds and make the song refer to them on disk as usual. This is done in the following way:

1. Select Song Self-Contain Settings from the File menu.

The dialog appears.

2. Locate the sounds you want to extract from the song file, and deactivate their checkboxes (or click Uncheck All).

3. Click OK to close the dialog.

Now, the program will check for each “extracted” sound file whether it is available (at its original, stored location) or not.

→ If the program finds the sound file at the location stored in the song, it is simply removed from the song file, and the original file reference path is used.

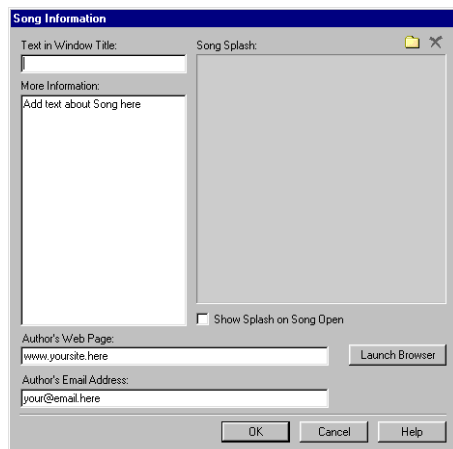
This would be the case if you made the song self-contained yourself, and un-self-contain it on your own computer (provided that you haven't removed the original sound files from disk since you made the song self-contained).

→ If the program doesn't find the sound file, a file dialog appears, allowing you to select a folder and name for the sound file.

The extracted file will be saved in the specified folder, and the path in the song will be adjusted. This would be the case if you got the self-contained song from another user, for example.

Song Information

Selecting the Song Information item on the File menu opens a dialog in which you can supply various information about the song.



For example, if you plan to send the song to other Reason users, this dialog allows you to add contact information, comments about the song, etc. Furthermore, if you save a published version of the song in the Reason Song Archive on the Propellerhead web site (see [page 104](#)), vital information can automatically be extracted by the web archive engine, and displayed with the song file.

The dialog contains the following items:

Text in Window Title

The text you add here will be displayed directly after the file name in the song window's title bar.

More Information

This is where you add notes and comments about the song.

Song Splash

Allows you to add a picture to the song. The picture will be displayed when the song is opened.

To add a splash picture, click the folder button at the upper right corner, and locate and open the picture file in the file dialog that appears.

! Splash pictures must be JPEG files (Windows extension “.jpg”) with a size of 256 x 256 pixels.

To remove the splash picture from the song, click the cross button.

Author's Web Page

Allows you to specify your web site. The user can go directly to your site by clicking the Browser button to the right (provided he has a working Internet connection).

Author's Email

This is where you specify your e-mail address, if you want other Reason users to send you their comments, etc.

Saving a Song

To save a song, proceed as follows:

1. **Set up the self-contained settings as desired (see the previous page).**
2. **Pull down the File menu and select Save (or press [Command] / [Ctrl]-[S]).**
If this is the first time you save the song, a regular file dialog will appear.
3. **Specify a name and location for the song and click Save.**

Once you have saved a song, selecting Save will simply save it under the same name and in the same location, without showing a dialog. If you want to save a song under another name or in another location, select Save As... from the File menu to open the save dialog.

Publishing a Song

If you want to make your songs available to the public, e.g. for downloading on the Internet, there is a special file format for this. A Reason published song (Windows file extension “.rps”) is much like a self-contained song, but has the following restrictions:

- The user cannot save any changes to the song.
- Copy, Cut and Paste is disabled.
- It is not possible to use the function Export Song/Loop as Audio File if the song has been changed in any way.

In a word, published songs are “locked”. They are meant for playback only - no elements can be added, removed or extracted. Furthermore, a published song contains information about which ReFills are required (if any).

To create a published song, pull down the File menu and select Publish Song. Specify a name and location for the published song in the file dialog that appears, and click Save.

- **Note that you don't have to make self-contained settings - all files (except ReFill components) are automatically included.**

About the Reason Song Archive

On the Propellerhead web site (www.propellerheads.se) you will find the Reason Song Archive. This allows you to share your music with other Reason users by uploading your songs.

Opening a Song

1. **Pull down the File menu and select Open.**
The Reason song browser window appears.
2. **Use the browser to navigate to the desired folder on disk or within a ReFill.**
See page 88.
3. **When you have located the song file, select it and click Open (or double click on the file).**
The song appears in its own document window.

- ⚙ **You can have several songs open at the same time if you like. This allows you to copy and paste patterns and patches between songs. However, all open songs consume some memory and performance, so you may want to close songs you don't need.**

If the “Missing Sounds” dialog appears

If the song includes samples or REX files, and these have been moved or renamed since the song was saved, the program will inform you that it cannot find all files. You can then choose to either manually locate the missing files, to have the program search for them or to proceed with missing sounds. For details, see page 95.

Closing a Song

To close the current song, select Close from the File menu or click the close box of the song document window. If you have unsaved changes, you are asked whether you want to save the song.

Creating a New Song

To create a new song, select New from the File menu. This makes a new song document window appear.

→ **By default, the new song will contain a mixer and an MClass Mastering Suite Combi.**

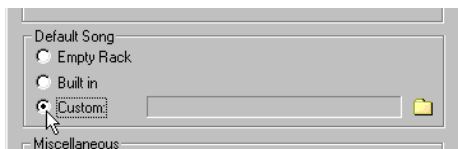
If you want to start with your own selection of devices (or an empty rack), you can customize your default song, as described below.

★ **An alternative to creating a new song would be to open one of the templates found in the Template Documents folder (within the Reason program folder).**

Creating a Default Song

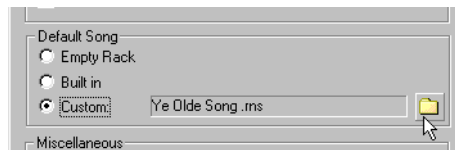
If you often start off with the same set of devices, patches, patterns and settings, you may want to create your own custom default song. Proceed as follows to specify a song as the default:

1. **Select New from the File menu to create a new song document window.**
2. **Add/remove devices and make settings as desired.**
Typically, you may want the default song to contain your choice of devices and possibly some patterns. You could also make some special routing between devices, or even add some sequencer data.
3. **Save the song anywhere you like, and under whatever name you like (to keep things organized you might want to save the song in the Reason program folder).**
4. **Open the Preferences dialog from the Edit menu (or from the Reason menu, if you are using Mac OS X).**
5. **On the “General” page, click the radio button to select “Custom” in the section called “Default Song”.**



6. **Click the folder icon to the right to open the file browser.**

7. **Navigate to the song you created earlier, select it and click “OK”.**
The name of the song appears in the textbox.



8. **Close the Preferences dialog.**

The next time you launch the program or select New from the File menu, the new song document will contain the devices and settings you made.

Exporting as an Audio File

When you have created a complete song, you may want to mix it down to make it playable for other people (who don't use Reason). Of course, you could connect the audio outputs of your audio hardware to a tape recorder or similar, and simply record the song. But if you are planning to burn an audio CD or create mp3 files, it's much more convenient to mix down to an audio file, using the Export functions.

You can either export the whole song (from the start to the "E" marker), or only the loop (the area between the left and right locator in the sequencer). Proceed as follows:

1. Make sure only the main stereo outputs are used.

That is, no devices should be connected to individual outputs (output socket 3 and higher in the Hardware Interface device). The export function will only include audio routed to the stereo outputs.

2. Make sure the Loop/End markers are at the correct positions.

If you want to export the loop, you need to set the left and right locators to encompass the desired area. If you instead want to export the whole song, make sure the End (E) marker is at the desired end position.



The E marker informs the program of where the song ends.

☆ If you are using reverb or delay, you may want to adjust the right locator or End marker so that the reverb/delay "tails" are included in the exported file.

3. Check that the song (or loop) plays back properly.

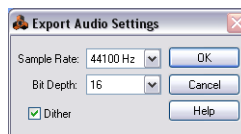
It's especially important that no clipping occurs during playback (see page 46).

4. Pull down the file menu and select Export Song as Audio File (or Export Loop as Audio File).

A file dialog appears.

5. Specify a name, location and file type (AIFF or Wave) for the audio file, and click Save.

This opens a Settings dialog.



6. Use the pop-up menus to select a sample rate and bit depth (resolution) for the audio file.

16 or 24 bit audio is supported, at a number of different sample rates. The exported file will always be a stereo audio file.

→ If exporting to 16-bits you have the option of applying Dither.

Dither is a type of noise added to a digital signal, which improves low level sound quality when exporting to a lower bit resolution.

☆ Which format to select depends on how you are planning to use the file. If you are planning to burn an audio CD, you should select 16 bit, 44100 Hz. If you are planning to open the file in another application, you should select a format supported by this application. Also note that the higher the resolution and sample rate, the larger the file.

7. Click OK.

The program creates the audio file. Depending on the length of the song/loop, this may take a while, during which a progress dialog is shown.

! If you are using ReWire, you may want to use the Export function in the ReWire master application instead. This allows you to include audio from both applications in the exported audio file.



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